This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

LANE MEDICAL LIBRARY STANFORD STOR
P47 .J16 1861
Report on the clinic for diseases of chi
24503327066

REPORT

ON THE

Clinic for Diseases of Children,

HELD IN THE

NEW YORK MEDICAL COLLEGE,

SESSION 1860-61.

WITH ESSAYS

ON SOME OF THE MORE IMPORTANT POINTS OF

INFANTILE THERAPEUTICS.

By A. JACOBI, M.D.,
PROFESSOR OF INFANTILE PATHOLOGY AND THERAPEUTICS.

NEW YORK:
HALL, CLAYTON & CO., PRINTERS, 40 PINE STREET.
1861.

P47
J16
1861

LANE

EDICAL LIBRARY

EVI COOPER LANE FUND

P47
816
1861

[From the American Medical Monthly for June, 1861.]

LANE MEDICAL LIBRARY
13994
SAN FRANCISCO

1. REPORT

LANE LIBRA

When, in the autumn of 1860, the Faculty of the New York Medical College was reorganized, it was thought proper to teach several branches of medical science separately. Infantile pathology and therapeutics was determined upon to form a distinct part of medical instruction, and a special chair was established for that purpose. The large number of infantile patients in general practice, the difficulty of diagnosticating their diseases, the importance of physical diagnosis and close observation applied to their ailments, the modification of physiological, and therefore pathological actions and symptoms, in early life, the care necessary in selecting the remedies and determining their doses in diseases of infancy and childhood, the occurrence of a number of diseases exclusively, or almost so, peculiar to early life, appeared to render this course exceedingly proper. As a special study of infantile diseases has been generally acknowledged to be a necessity, the profession, in my opinion, has the right of, as well as interest in, knowing in what manner and to what extent the proposed aim has been reached.

The following report will show that the poor of this city and neighboring places have not been slow in recognizing the help offered them. A large number of neglected or obstinate cases were brought to the new institution, some from great distances, to be relieved or cured, and a number of others that had been given up as hopeless were presented for the purpose of obtaining a final opinion. Thus the students of the college have had the opportunity of seeing infantile diseases to a considerable extent; the more so, as particular care was taken to accustom them to diagnosis and selection of remedies. Every single case that was presented in the two clinical hours a week, was given in charge of a member of the advanced class, who had to examine, report, and prescribe, before any remarks were made by the teacher. Then, at last, the case was commented upon for its own merits, by comparison with general experience, and with reference to the theoret-

ical lectures; thus affording, if not a universal knowledge of every disease, the means of learning and exercising a universal scientific method. I am pleased to say that the attention and regular attendance of the class, and their eagerness to visit a number of patients at their homes, have afforded abundant proof of their appreciation of the opportunities offered.

I intend in this paper to pass in review the cases presented as briefly as possible. Such remarks as had to be made during the course, I expect to condense and treat of separately at the end of this report. I intend by this means to express in separate articles my opinions as given in a number of clinical lectures, particularly on subjects concerning therapeutics; selecting, for instance, the use of depletion, mercurials, anti-febriles, narcotics, etc, in diseases of the infantile age. Thus I hope both to serve my pupils and to elicit the always welcome criticism of the medical profession.

Of the reported cases, all such as either terminated fatally or were not watched to their final recovery, will be mentioned; those in which no report to the contrary is given, got well, or were improved.

1. Solomon M., æt. 2 years. *Lobular pneumonia* of left upper lobe, after measles. Percussion dull over left upper lobe, anteriorly, mucous râles on the same side; respiration more or less vesicular on right side. The exudation absorbing, and the child being anæmic and with a frequent and small pulse from no local acute disease, the treatment consisted of sulph. cinch., ℈j; div. in p. iii., a powder every morning, and nutritious diet. The same treatment was continued for three more days, and followed by syr. iodid. of iron, ten drops three times a day, in a tea-spoonful of ol. morrh. No new exudation took place in the lungs, and the child recovered in about a month.

2. Catharine K., æt. 6 years. *Anæmia;* excoriations at the introitus vaginæ. Is reported to have, in regular monthly intervals, a copious leucorrhœal discharge for several days. Ordered to return at the time of the next discharge, and meanwhile to take pulv. ferri., gr. j., three times a day. Was presented after a fortnight, and reported no better. The same sallow, œdematous appearance, the same listlessness; none of her discharges. The same treatment continued, as was the recommendation of nutritious diet, fresh air and cold water, the want of which is deemed the only cause of the patient's anæmic condition. She looked decidedly better a fortnight afterwards, was stronger and more lively, and had a good appetite. No discharge. All the outward symptoms had disappeared eight weeks after her being presented for the first time.

3. William H. T., æt. 1 year, 4 months. *Scrofulous diathesis* from birth. *Stomatitis, pneumonia* left upper and right middle lobes, anteriorly. *Enlargement of liver.* Father is believed to have been syphilitic. Both parents dead. Child lives in bad circumstances, and looks emaciated and poor. No muscular power, no fat. Extreme dyspnœa. Respiration hurried; meteorismus; external veins of thorax, abdomen and head very much injected. Dull percussion sound anteriorly over left upper and middle right lobes; mucous râles all over both lungs. Submaxillary and cervical glands swelled; some suppurating. Pulse, 120; respiration, 60. Treatment: Fresh air, beef and milk. ℞.—Sulph. cinch., ℈j., div. in p. iii. D. S.: A powder every morning. Presented in about the same condition, after a week; part of the remedy not yet taken, as the druggist had told the attendant it was enough to kill two grown men. The same treatment again ordered. After three days the symptoms less severe; hepatization still in left upper lobe. Smaller doses of cinch. given; the child continued to get better until a new fever set in about a week afterwards. No new physical symptoms found, but as the pulse was again 144, and respiration 44, and a new attack of pneumonia dreaded, ℞.—Hydrarg. submur., oxysulph. antimon., ää. gr. vj., div. in p. æq. xii. D. S.: a powder every two hours. At the same time a daily dose of sulph. cinch., gr. vj.⅔, and recommended to go to the country. Patient presented after four weeks, well, hearty, and stout. No pulmonary or hepatic symptoms; ulcerations around the neck closing; appetite good. Nobody able to recognize our former patient. Ol. morrhuæ.

4. Wolf St., æt. 7 months. *Ulcerations* of the folds of the neck, with much loss of substance, and *erythema* around anus; resulting from uncleanliness and the free external use of starch-powder, which is the most frequent cause of simple erythema to be transformed into deep offensive ulcerations. Treatment: cold water instead of starch-powder; application to the ulcerations of ℞.—Sulph. cupri., ℈j., aq. ℥viii. When presented after four days, the erythema round the anus was nearly gone, and the sores granulating and filling up rapidly. Perfect recovery after some weeks.

5. Elizabeth L., æt. 14 weeks. *Syphilis hereditaria, roseola syphilitica, rhagades ani et oris, ecthyma syphiliticum.* The mother has been syphilitic for four years, and is still under treatment. Roseolous eruption visible for the last fortnight, of pink color, round, irregular, confluent, from the scapulæ down to the lower extremities. Five or six ecthyma pustules on back and abdomen. Superficial rhagades of both angles of the mouth; deep ones round the anus. Treatment: submuriat.

hydrarg., gr. $\frac{1}{6}$, three times a day; no external applications. A week afterwards the eruption commenced getting paler. The same treatment was continued for about ten weeks, the child gaining flesh and strength from week to week. About the end of this period the child contracted on three spots of the occiput, *tinea favosa*, the favus fungi appearing in large number under the microscope, and required some seven or eight cauterizations with either concentrated acetic acid, or nitrate of silver.

6—7. Two sons of the same mother, born before she was syphilitic, æt. 4 and 15 years. *Scrofula.* Enlargement of the submaxillary glands, upper lip, nose, belly, etc. Ol. morrh., $\frac{1}{2}$ table-spoonful three times a day.

8. Jane K., æt. 6 weeks. *Frenulum oblongatum*, to such an extent as to embarrass nursing. Treatment: incision.

9. Harry D., æt. 3 years, 6 months. *Bronchitis*, general, and with high fever. Oxysulph. antim., gr. ii., pulv. h. digital. gr. j., every two hours; 12 doses.

10. Jane D., æt. 9 months, sister of 9. *Bronchitis*, with the same symptoms. Oxysulph. antim, pulv. h. digital., ää., gr. ss., every two hours; 12 doses. Both were reported to be better three days afterwards. Then took oxysulph. antim. alone every three hours, and were brought back four days later, recovered.

11. Fred. D, æt. 10 months. *Catarrhus intestinalis.* Submur. hydrarg., gr vj., pulv. Doveri, gr. iv., cret. præpar., ʒss., div. in p. æq., No. xii. A powder every two hours.

12. Catharine W., æt. 6 years. *Pneumonia*, left upper lobe, anteriorly and posteriorly. Pharyngitis; sloughing of tonsils; foul breath; small glandular swellings around the neck. The girl had measles five months ago, and has been coughing ever since. Respiratory murmur tolerably normal over right lung; no dull percussion sound; occasionally a mucous râle. Lower lobe of left lung equally normal; over the upper lobe, left lung, dull percussion sound, and mucous râles in the bronchi; little action of the inspiratory muscles. As the hepatization appeared to be in a process of absorption, it was deemed advisable to leave it to itself and attend to the pharyngeal affection. The deep ulcerations on the tonsils, and the glandular swellings around the neck, small though they are now, arouse the suspicion of a diphtheritic affection having been present. Treatment: chlorat. potass., ℥ss., aq. ℥vj., $\frac{1}{2}$ table-spoonful to be taken every two hours. Patient got better under this treatment; continued for a week, with nutritious diet. Took afterwards, for a week, tinct. muriat. ferri, 12 drops every

four hours. Was presented again ten days later, three days after stopping taking medicine, with gastro-intestinal catarrh, apparently from indigestion. At this time no symptoms of pneumonia left.

13. Patrick McC., æt. 11 years. *Conjunctivitis trachomatosa.* Treatment: Solid. sulph. cupri, twice a week.

14. William S., æt. 1 year, 7 months. *Catarrhus intestinalis.* Mild case. Tinct. opii camphor., gtt. x., every two hours.

15. Henry V., æt. 11 years, 6 months. *Tuberculosis*, left upper lobe, anteriorly. Left subclavicular region sunk; dull percussion sound; respiratory murmur diminished; no mucous râles. Respiratory murmur increased on the opposite side. Patient emaciated and pale, thorax narrow. History very defective. No feverish disease known, but is reported to have coughed for the last six weeks only (?) Parents dead; father had consumption. Treatment: Ol. morrh. ℥j. daily. Gymnastic exercise, to enlarge the thorax and extend the lungs.

16. Lena M., æt. 1 year, 3 months. *Arterial nævus* on the forehead, half a square inch in size. By means of a small brush, the following cautery: ℞.—Hydrarg. bichlorid., ʒj., collodii, ℥j., was applied on October 2d, 5th, and 12th, with perfect success.

17. John M., æt. 4 years, 6 months. *Catarrhus laryngeus et bronchialis.* Croupy cough; mucous râles all over the thorax; moderate dyspnœa; coughing paroxysms in the night. As an expectorant, the following mixture was given: ℞.—Muriat. ammon., extr. glycyrrh. ää., ʒiij., aq. ℥vj., M. D. S., ½ table-spoonful every two hours. Besides, tinct. opii camph., ½ tea-spoonful, was ordered to be taken every night. Reported to be well the following week.

18. F. N., æt. 1 year, 6 months. *Conjunctivitis scrofulosa, pannus corneæ of the left eye.* The boy is decidedly scrofulous; has glandular swellings around his neck, and is reported to have suffered from discharges from the nostrils and left external ear. Ol. morrh. internally acetat. morph. in substance applied to the eye. The same treatment, although sometimes interrupted, was followed for several months, the more so as exudation took place on the right cornea also. Intercurring acute swellings of glands in front of the left ear were successfully treated with tinct. iod. externally. Another attack of external otitis, with copious and offensive discharge, was gradually diminished by injections of acid. tannic, ʒiss., aq. ℥vi., and the system generally improved by generous diet and the continued use of ol. morrh. ℥ss. daily, and syr. iodid. ferri, 6–8 drops three times a day.

19. G. A. C., æt. 1 year, 6 months. *Eczema diffusum.* Eczematous

eruptions in every state of development on several parts of the body; some being scarcely perceptible; some larger vesicles filled with a clear, transparent liquid; some with thick purulent matter; some dried up, and forming a thick, hard scab. Treatment: Bathing in soap and water twice a day. R.—Pulv. rad. rhei, gr. xviii.; oxysulphuret. antimon., gr. vi. Div. in p. æq. No. xii. D. S.: Two powders daily.

20. Lewis K., æt. 2 years, 9 months. *Imbecillitas.* The boy is reported to have been well developed up to his eleventh month, when he commenced walking. After this time he suffered from numerous attacks of convulsions, 12–20 a day, for a protracted period. What muscular action of the locomotive organs he had before he then lost, until he was nearly two years old. About this time he commenced again to walk, but is unable to speak. His head is pretty small in circumference, forehead low, eyes small, occiput proportionally large. The cranium feels very hard and solid to the touch, and over the region of the large fontanel no local impression, but a general depression of the surface is perceptible. The mother, who has bred children before this one, states that the pulsations in the fontanel have never been perceptible. The case, then, is considered as one of idiocy, resulting from premature ossification of the sutures and fontanels of the cranium, and given up, from a medical point of view, as hopeless, the prognosis being highly unfavorable; for either the child will remain idiotic for life, or will perish from any feverish disease that may occur.

The cranial abnormity, in its bearings on the mental condition of the child, looks very much like the case reported by Schützenberger, in which the disease lasted about four years, before the continually increasing compression of the hard, compact, and eburneated cranium succeeded in effecting the death of the patient, who had endured all his life frequently repeated faintings, a long series of epileptic and tetanic attacks, abnormal irritability, mental weakness, and, at last, idiocy. Or like the cases reported by Baillarger, who observed three microcephalic idiots whom their mothers reported to have been born with their skulls perfectly closed and solid. Two other of her children, who were well developed, both physically and mentally, had their large fontanel open for a long while after birth. Similar facts he learned from another woman, who was mother of one microcephalic idiot, and of some other children of normal development. Vrolik knew an idiotic boy of seven years whose cranial sutures had entirely disappeared. Cruveilhier relates the case of an idiotic child of eighteen months, without any discernible sutures. Thus the human cra-

nium, without any, or with prematurely closed sutures, is very much like that of animals, of which class a few varieties of apes are the only ones who have for a short while after birth small and rapidly ossifying fontanels. For this very reason Baillarger compares microcephalic idiots to animals, both from an anatomical and pathological point of view. Gratiolet does not even stop here, but asserts that there is a direct relation between the earlier or later ossification of the sutures, in the different races and types of mankind, and the height of their intellectual capacities. He states that the cranial sutures close later in Caucasians than in Negroes, and particularly that the coronal suture ossifies early in Negroes, late in Caucasians. For this reason a proportionally late ossification of the coronal suture seems, *ceteris paribus*, to be favorable to intellectual development. The high forehead also of the Caucasian, and the low one of the Negro type, are evidently depending on this physiological fact, although it may be stated that the synostosis of the sutures is not the only cause of cranial difference in the races; the various characters of the crania, as they are found in different types, being partially formed before the synostosis of the sutures is complete.*

Besides the probability of this boy remaining idiotic for life, there is another possibility. I have found that, although premature ossification of the fontanel and sutures need not of itself absolutely and always produce congestion of the brain or its membranes, which often is the final cause of death in such cases, every child whose fontanel and cranial junctures have been prematurely closed, and who falls sick with symptoms of cerebral irritation or depression, is predestined to certain death. Condie, too, states that when the growth of the cranium ceases, while that of the brain continues, the morbid phenomena resulting from the compression of the brain, which invariably results, may certainly be to a certain extent abated, the comfort of the patient increased, and life prolonged by a proper hygienic course of treatment; but all hopes of effecting a cure must be abandoned. And I have further found, and proved by a number of cases of pneumonia, intermittent fever, etc., that in all cases of children, whose cranial junctures are prematurely ossified, any acute or febrile disease invading the system, slight though the acute intercurring affection may be, offers a most

---

* On the Etiological and Prognostic Importance of the Premature Closure of the Fontanels and Sutures of the Infantile Cranium, in *New York Journal of Medicine*, January, 1858, and in Noeggerath and Jacobi's Contributions to Midwifery and Diseases of Women and Children: New York, 1859.

unfavorable prognosis. Thus, in our case, we scarcely know what prognosis is to be preferred, idiotism for life, or an early death.

21. William T. *Ulceration* at the point of insertion of the *frenulum of the tongue*, probably resulting from previous aphthæ. Repeated cauterizations with the solid nit. argent. proved satisfactory.

22. Charles S., æt. 1 year. *Syphilis hereditaria, roseola syphilitica, rhagades ani.* The father appears to have been, or is still, syphilitic; at least the mother impugns him with being the cause of the child's illness. The boy was under medical treatment a number of months ago, with apparently good result. But he again lost flesh, strength, and appetite, and showed the former symptoms, which the mother reports to have been of the same character as these. The treatment consisted of submur. hydrarg. gr. $\frac{1}{4}$ three times a day, for two months; that is, three weeks after all the secondary symptoms had disappeared. For a number of days the child suffered, in the mean time, from bronchial catarrh, independent of his specific disease, and then only the usual formula was changed for: ℞.—Submuriat. hydrarg., gr. iii.; oxysulph. antimon., gr. xvi.; sacch. alb., ℈j.; div. in p. æq. No. xvj. D. S.: 3 powders daily.

23. John D., æt. 7 years. *Catarrhus Intestinalis.* The diarrhœa having lasted for some time already, and the abdomen generally appearing to be a little painful to the touch, we considered the case as one of consecutive irritation, rather than of real anatomical disturbance. Two drops of laudanum given every three or four hours, proved sufficient to restore the boy to his general well-feeling, and to remove the serous secretion that still continued.

24. Raphael B., æt. 4 months. *Hydrencephaloid.* The boy has been suffering from a severe intestinal catarrh for a month, and is perfectly exhausted and emaciated. Extremities cold; head very hot; external veins of the cranium congested; large fontanel elevated, extended, and pulsating; scalp wet with perspiration; conjunctivæ injected; pupils contracted; the child moaning constantly; respiration hurried; pulse 140. Evidently the anæmia of the cerebral substance resulting from the general condition, had given way, *ex vacuo*, to hyperæmia, threatening exudation. Treatment: Generous diet; ice to the head; extremities to be kept warm; sulph. cinch., gr. i., acid tannic. gr. ss., four times a day. Injections with brandy into the rectum ordered after the temperature of the head had become diminished. The boy was presented several times during the next fortnight; decidedly not worse; the temperature of head and extremities more

equal; excretions more normal, but was finally lost sight of. Depletion or any enfeebling remedial agent or method was carefully avoided.

25. Caroline I., æt. 5 months. *Catarrhus Bronchialis.* Is reported to have suffered from more dyspnœa and fever than when presented. No pulmonary infiltration; mucous râles only. No treatment. Reported to be well after seven days.

26. Julius D., æt. 2 years. *Pneumonia Bilateralis.* Dull percussion sound, and bronchial respiration in the subclavicular region, right side; subcrepitant râle over left lung, inferior lobe, posteriorly. Great dyspnœa; pulse 154; temperature of head high; child has vomited twice. Treatment: ℞.—Tinct. digitalis, ʒiii.; Syr. ipecac., ʒij. M. D. S., 20 drops every two hours. Three days afterwards, dull percussion sound still over both the affected lobes; mucous râles in the right lung. Syr. ipec. alone.

27. Eliza T., æt. 7 months. *Broncho-Pneumonia,* upper lobe, left lung. The greater part of the lung hepatized; mucous râles heard on several places; fever pretty high still, therefore it is thought proper to combine an anti-febrile with an expectorant. ℞.—Pulv. herb. digital., gr. xii.; acid. benzoic, gr. viii.; sacch. alb., ℈j. Div. in p. æq. xvj. A powder every two hours. Was not brought in before three weeks, when there was no fever nor dyspnœa, but dull percussion sound to some extent, and mucous râles. ℞.—Oxysulph. antimon., gr. viii.; sacch. alb., ℈ij. Div. in p. æq. No. xvi.

28. William M., æt. 6 years. *Pleuritic Exudation and Splenization* of the left lung, upper lobe. Has suffered from measles nine months ago, since then from otorrhœa and cough. No accurate history. Percussion and auscultation show normal results over the right lung and inferior lobe of the left, with the exception of the respiratory murmur on the right side being unusually puerile. Percussion sound over the diseased part exceedingly flat; respiratory murmur much diminished. Treatment: Gymnastics and cod-liver oil. Proper diet.

29. Isabella N., æt. 1 year and 6 months. *Contusion of Shoulder-Joint.* ℞.—Ol. Camphor.

30. John H., æt. 1 year and 6 months. *Pneumonia Chronica* of the right lung, upper lobe, *Hypertrophia Hepatis.* Has suffered from diarrhœa and cough for five months; is very much emaciated, and unable to stand on his feet. Limbs very thin; cheeks sunk; dyspnœa moderate; abdominal; abdomen enlarged; veins on thorax and abdomen much injected. Dull percussion sound in the subclavicular region, right side, and over the hepatic region up to the fourth rib, over the sternum, up to the heart. Treatment: Generous diet, cool air.

Sulph. cinch., gr. v., every morning; Syrup. iodid. ferri, gtt. viii., three times a day, in a tea-spoonful of cod-liver oil. This treatment was continued for two months, (with the exception of cinch., which was given in but six doses,) until both physical symptoms and external appearance proved the boy to be well.

31. Henry H., æt. 9 months. *Pneumonia* of right lung, upper lobe. Hepatization; constipation. ℞.—Syr. Scillæ compos., 8 drops every two hours.

32. John V., æt. 6 years. *Pneumonia* of left lung, upper lobe. Subcrepitant râle; slight dullness; high fever; vomiting; moderate pain over the affected part. ℞.—Tinct. rad. aconiti, gtt. vj. every two hours. Was not presented before a week; the morbid process not changed as to place, but character; hepatization fully developed. Loss of appetite and strength perfect; pulse 136, small; respiration 36. Treatment: Wine, beef. ℞.—Sulph. cinch., gr. xv., div. in p. æq. No. ii. D. S.: A powder every morning. At the same time: ℞.—Acid. benzoic, ʒss.; Sacch. alb., ʒjss. Div. in p. æq. No. xxiv. D. S.: A powder every two hours. After three days, the general condition improved, absorption commencing in the hepatized tissue. The case then was left alone, with nutritious diet, and did well.

33. Ann B., æt. 8 months. *Catarrhus Gastricus*, from injurious food. Vomiting, furred tongue, foul breath. Occasionally an acid passage. No particular fever. ℞.—Bicarbon. sod., ʒjss.; Aq. ℥iii. M. D. S.: A tea-spoonful every two hours.

34. Rachel B., æt. 2 years. *Diphtheritis vaginalis.* Diphtheritic membranes over the whole vaginal surface, ulcerated appearance of the tonsils, as if exudations had been already thrown off. Treatment: Liq. ferr. chloridi, gtt. viii. every 3 hours; local application of a saturated solution of chlorat. potass. in water, (1:16.)

35. James L. R., æt. 1 year and 1 month. *Œdema pedum ex anæmia.* The boy looks extremely anæmic, emaciated, and œdematous at the same time. Had scarlatina three months ago. Afterwards suffered for six weeks from an exceedingly severe diarrhœa and vomiting. Diagnosis: Hydrops ex scarlatina. Under this impression, the boy was ordered to take, besides nutritious food, tannic acid, gr. ii. 3 times a day. After three days worse. Meanwhile the urine had been examined, and was found to contain neither albumen, nor blood, nor casts. The diagnosis was then changed as above: ℞.—Ferri pulv. ℈j.; pulv. Doveri, gr. vj.; sacch. alb., ℈ij. M.—Div. in p. æq. No. xx. D. S.: 3 powders a day. No decided improvement took place before three weeks, the œdematous swelling meanwhile increasing.

36. R. K., æt. 8 months. *Pneumonia* of left lung, lower lobe; hepatization; absorption commencing. ℞.—Oxysulph. antimon., gr. viii.; Sacch. alb., ℈ii., m. f. pulv. Div. in p. æq., No. xvi. D. S.: A powder every two hours.

37. R. T. H., æt. 11 years. *Febris Intermittens Quotidiana.* Attacks daily, although intermittent fever at this age will more frequently show the tertian type of adult age. No enlargement of spleen or liver. General health good. ℞.—Sulph. cinch., gr. x. two hours before the next attack. Reported well a week afterwards. The same dose ordered once more.

38. Mary K., æt. 5 months. *Eczema Capitis et Faciei.* Scalp and face partially covered with thick scabs; purulent matter contained in a number of pustules; a transparent liquid in others just formed. This case shows exceedingly well the absence of any intrinsic difference between eczema and impetigo, the vesicles being evidently, by a gradual change taking place in their contents, transformed into pustules. The child has suffered from diarrhœa for two months, and is still pale, and fontanels a little sunk. Therefore, in this case, some care is taken not to suppress the secretion at the scalp suddenly. As a general rule, in very young children, an eruption complicated with a large amount of secretion going on for some length of time, especially on the scalp, must not be suppressed at once, although its cautious removal will not bring on the dangers attributed to it by the public prejudice. Treatment: ℞.—Liq. potass. caust., ʒii.; Ol. morrh., ℥ii. To be applied twice a day over one-half of the diseased surface. The scabs were mostly removed after a week, when application of Goulard's wash was resorted to, and the same proceeding commenced with on the remaining half. Some eruption and secretion took place a number of weeks afterwards, as it will generally do at this age; but it was treated in the same manner, and never reached any considerable extent.

39. James R., æt. 1 year and 5 months. *Erythema et ulcera colli.* Deep ulcerations in the folds of the neck, the result of carefully abstaining from Croton water, and adding "powder" and sweet oil to a simple erythema. Treatment: Croton water, and ℞.—Argent. nitrat., gr. v., adipis suilli, ʒj.; M. f. ung., to be applied three times a day. Wounds granulating well after a week. Then local applications of ℞.—Sulph. cupri., ℈j.; aq., ℥viii.

40. Robert D., æt. 1 year and 11 months. *Strabismus convergens,* left eye. Operation recommended.

41. Caroline C., æt. 1 year and 6 months. *Catarrhus Vaginæ.*

Purulent secretion from the vagina for several weeks, from unknown cause. No dysuria. Erythema on and around the perineum. Aq. plumb. externally.

42. Thomas M., æt. 2 years. *Pharyngitis. Adenitis submaxillaris.* Tonsils swelled, the mucous membrane of the velum palati and the posterior wall of the fauces injected; submaxillary glands tumefied; pulse 110. No membranes found. ℞.—Chlorat. potass., ʒij; aq., ℥iv. M. D. S., half a table-spoonful every two hours.

43. John S., æt. 4 years. *Ulcera colli.* Ulceration of the left side of the neck, of the size of a square inch. Has been observed for five weeks past, and appears, according to the relation of the mother, to be the result of neglected furuncles. Treatment: ℞.—Sulph. cupri., gr. xv.; aq., ℥v. D. S., for external use. Granulations exhibited themselves very soon, and the sore was healed up in about a fortnight.

44. M. K., æt. 5 years. *Bronchitis.* Fever already less, mucous râles commencing to be audible. ℞.—Oxysulphur. antimon., gr. viij.; sacch. alb., ℈ij. M. f. pulv. div. in p. æq., No. xvj. D. S., a powder every two hours.

45. Jane K., æt. 3 years. *Eczema Capitis, Faciei et Colli.* Eczematous eruption in every possible form on scalp, face, and neck. Isolated pustules have been formed wherever a drop of the secretion has come in contact with the healthy skin. The glands of the neck slightly tumefied, general appearance of the child scrofulous. Treatment: Ol. morrhuæ. The scurf to be removed by means of warm oil and soap, and afterwards, to be applied three times a day: ℞.—Acid. tannic, ʒjss; adip. suilli, ℥jss. M. f. ung. Presented again eleven days afterwards; getting better. The same treatment continued.

46. Joseph B., æt. 8 years. *Vulnus Capitis.* Fresh cut wound on forehead. Suture.

47. John P., æt. 1 year and 7 months. *Catarrhus Intestinalis.* Diarrhœa has continued for a week, of a mucous character. No fever, a little tenesmus, number of passages from five to eight. ℞.—Opii, gr. ss.; carbon calcar., ʒss. M. f. pulv. div. in p. æq., No. xii. D. S., a powder every three hours.

48. Johanna L., æt. 11 years. *Adenitis Scrofulosa, Eczema Capitis.* The girl is reported to have been perfectly well until four years ago, when she suffered from malignant scarlet fever. Her system appears to have been thoroughly affected, and since that time symptoms of scrofula made their first appearance; cheeks bloated, upper lip and nose thick, submaxillary and cervical glands considerably enlarged, eczematous eruption all over the scalp for more than a year. No other members

of the family scrofulous. As in this patient the cause of the scrofulous symptoms is certainly of a general deep-seated nature, having been brought on by the intense general affection produced by scarlatina, it was resolved upon to resort to a general treatment before applying astringents externally. ℞.—Syr. ferr. iodid., gtt. xii., in half a table-spoonful of cod-liver oil, three times a day; animal diet, avoiding of amylaceous food; and soap and water twice a day, besides general baths.

49. Thomas B. *Eczema Diffusum.* A number of eczematous pustules dispersed over the surface, particularly of the lower extremities, probably the result of uncleanliness only. Ordered to bathe in soap and water daily. No pustules a fortnight afterwards.

50. Mary S., æt. 3 years and 6 months. *Hernia Inguinalis Sinistra, Pleuro-Pneumonia Chronica, Pharyngitis Acuta.* The hernia in the left inguinal region was first observed when the child was three months old. As no appropriate treatment was resorted to, it will still protrude during an attack of coughing. Truss ordered. Considerable enlargement of tonsils and uvula, and acute swelling of pharynx generally; fever moderate; constant cough, especially when lying down, probably increased by the irritation produced on the posterior wall of the fauces by the enlarged uvula. ℞.—Chlorat. potass., ʒiij.; aq., ℥vj. M. D. S., half a table-spoonful every two hours; pulv. Doveri, gr. iiss. at bedtime. Acute pharyngitis well after a week, but enlargement of tonsils, and particularly the uvula, still considerable. Coughing spells not frequent, but a short annoying cough after lying down. Part of the uvula removed, with good result as to the nightly attacks of coughing, and the old pulmonary complaint attended to. The child had measles several years ago, and has been exposed since to a number of pulmonary complaints of either catarrhal or inflammatory character; has coughed almost constantly, and often suffered from attacks of dyspnœa. Respiration somewhat abdominal, circumference of the right half of the thorax less than the left, while the normal condition is the reverse. Right subclavicular region a little depressed, and little action of inspiratory muscles visible over it. Dull percussion sound over the upper lobe of right lung, both anteriorly and posteriorly; respiratory murmur bronchial, audible as it were at a distance. Diagnosis: Pleuritic exudation and (or only) induration of pulmonary tissue, being the result of one or more attacks of pleuro-pneumonia during, or (and) after measles some years ago; as some fever was still perceptible, sulph. cinch. was given for several days, in a daily dose of gr. vj., and a dose of pulv. Dov., gr. iij., was still ordered for

some more nights; to be discontinued after several days, and replaced by syr. ferri iodid., gtt. x., three times a day, in half table-spoonful of cod-liver oil; gymnastic exercise to dilate the thorax, nutritious diet. The child gained flesh and strength during the following months, although the physical symptoms of pulmonary disease were never entirely removed.

51. Mary S., æt. 2 years, 6 months. *Synoviitis Chronica Genu Dextri.* Right knee considerably swollen, the circumference being twelve inches; leg inflected; little spontaneous, not much forcible motion; not much pain on pressure, but fluctuation or rather elasticity perceptible, showing a large amount of liquid to be inclosed by the synovial membranes. No particular symptoms of scrofula perceptible; no knowledge of a traumatic injury. The assumption of the latter having taken place is more probable than the former, as there are no symptoms of general disease. The child has always been under treatment, tinct. iodine and vesicatories having been applied to some extent. Treatment: Compression of the knee by means of a bandage. A week afterwards circumference of the knee ten inches. Prescription wanted for some internal medicine, and refused. Patient not presented again.

52. Robert S., æt. 6 years. *Craniosclerosis Rhachitica.* Patient is the son of apparently healthy parents, but his brothers and sisters, of whom there are four, are all more or less rachitic. Developed very slowly while an infant; was late in teething; his limbs somewhat bent in the direction of the flexor muscles, and the epiphyses very much thickened on both radii and tibiæ. His intellect is reported to have been bright during the first two years, but then commenced to diminish. His eyes are deep-seated and small; the expression of his face dull; his intellect of a very low character; his locomotion clumsy. He is unable to articulate, and the only intellectual power that is left is evinced by his doing mischief. His forehead is large, root of nose thick, circumference of cranium 22 inches; occiput normal, and small in proportion to forehead. Cranium feels very hard and solid to the touch, and its anterior portions are evidently thicker and heavier than normal. Defecation and emission of urine not frequent, but will occur without the patient troubling himself about them. All the other vegetative functions in perfect order. The case must be taken as one of a general nature, the result of vicious general development, and its first origin must be traced back to early infancy. In the first years, when general symptoms of rachitis showed themselves, the bones were soft, succulent, and full of blood-vessels, and the cranium and cerebrum like the rest; whether, however, rhachitic softening of the cranial

bones, craniotabes, has really been present, cannot be determined upon; at all events, the bones of the posterior part of the cranium, in which craniotabes is always seen, appear more normal than the rest. After the period of rhachitic, spongy thickening, and consequent mollification, osteoporosis was followed by the stage of rhachitic eburneation. During this period the peculiar osseous cells became more numerous, the layers of the osseous tissue that separated from each other during mollification filling up with them, and the canaliculi got thinner. In the physiological condition, the inner lamina of the bones is said to stop vegetating after the tenth year; and the dura mater does not form new layers before the regressive period of cerebral development takes its commencement, in advanced years. After the fiftieth or sixtieth year of life, absorption begins to lose in power, the brain gets smaller, the veins narrower, arteries wider. If this development takes place in early life, the case is, like that before us, without injury to the cerebral functions when the external layer only is affected, but with decided troubles of the cerebral functions, resulting in spasms, neuralgias, paralysis, or idiotism, when the process takes place on the inner lamina.

The case before us is well illustrated by the investigations laid down by Prof. Huschke, of Jena, in his last work on "Craniosclerosis Totalis Rhachitica." Undoubtedly this case does not compare in importance with that published by Prof. H., but the best-developed cases will always do most in illustrating the whole class.

The case of *total* osteosclerosis described by H. is that of a girl of seventeen years of age, whose skull (the normal weight being 600 grammes) weighed as much as 4,117 grammes. The microscope showed that the medullary (Havers') canaliculi were large, and very numerous on the surface, narrow and very few in the interior of the sclerotic bones, and that the osseous canaliculi were more spherical and irregular in site and shape. The chemical composition was also abnormal, the constituents being phosphate of lime, 65.59; carbonate of lime, 11 12; sulphate of magnesia, 1.14; cartilage, very little fat, etc., 22.15. No fluorate of lime was found. After all, the bones, taken as a whole, proved exceedingly solid, but fragile; when tried in small pieces, very white in their interior, but yellowish on their surface; the latter color being the relic of extravasated blood or other pigmentous matter. Another skull, in the possession of the author, and apparently only in the beginning of sclerotic development, weighed, inferior maxilla excluded, 1,075 grammes; and a third, in the museum of the University of Jena, of the same description, is that of a young baboon,

in which all the bones covering the hemispheres had undergone the sclerotic anomaly.

The superior half of the skeleton, in the physiological state, exceeds the inferior half by a greater amount of calcaria. But this prevalence is not only absolute, but also relative, the single bones containing a larger average proportion of earths in general, and lime in particular. There is also a physiological cranioscleroses in families as well as nations; the thickest and hardest skulls being found in African negroes, whose crania, although they be not absolutely heavier than Caucasian ones, undoubtedly have a greater weight in relation to the size of the cranial cavity. Further, the crania of the flesh-eating negroes of Guinea are much harder and heavier than those of Persians and Hindoos. Moreover, it is altogether noteworthy, that the human organism in Africa is throughout prominent for the exceedingly strong development of the substances and organs taking the lowest place in human chemistry and physiology, viz., bone, fat, and sexual organs, etc. Of undoubted morbid total cranioscleroses, there are only ten cases: those of Malpighi, 1697; Cuvier, 1822; Ribalt, 1828; G. Forster and Bojanus, 1826; Ilg, 1822; Kilian, 1822; Otto, 1822; Vrolik, 1848; Albers, 1851; Huschke, 1858. The disease does not affect the auditory bones, the condyles of maxillary and occipital bones, and the styloid process of the temporal bone. There are some symptoms of the disease in the posterior part of the cranium and basis cranii, but most affected are the bones of the face, and the frontal, parietal, and cribroid bones. Thus the disease takes its origin in the anterior portion of the skull, particularly in the superior maxilla, and proceeds upward and backward, terminating in the basis cranii, in the neighborhood of the infundibulum and appendices. Two observers have been so fortunate as to meet with the preceding disease in the living. The average amount of earthy matter is very considerable in all of them. While the normal proportion of earthy matter to organic substance in cranial bones has been found by Professor Frerichs to be = 2.1 (or 1.5) : 1 —it is in the sclerotic bones from 3.5 to 4.4 : 1. Generally, the carbonate of lime is reported to have been found increased, which proved to be the like in spongy bones. All the cases were those of juvenile individuals, or at least the disease had commenced in childhood.

The conditions necessary to the development of cranio-hyperostosis are, first, abundance of lime; secondly, congestion, and sometimes chronic inflammation. It is a characteristic fact, that the bones, the development of which is the quickest after birth, show the greatest disposition to hyperostosis, as the maxillary and cranial bones. Abun-

dance of lime may be produced by such food as meat. One of the patients is reported to have been a very hearty eater. Or, as was the case in Huschke's individual, there is little excretion of lime by the urine. Or there is a metastasis of lime in such a manner that lime is resorbed in certain other places, and introduced into the substance of the cranium. Probably a number of cases co-operate for the same effect. But, at all events, it must be borne in mind, that the pathological process, great though the anomaly may be, is in a majority of cases to be explained by, and to be considered as, an extravagance of normal physiological development.*

As to our case, mild though it be in proportion to those on which Prof. Huschke has written in his excellent monograph, its prognosis is very unfavorable. The pressure on the cerebral substance cannot be relieved by any medicinal treatment.

53. John L., æt. 1 year, 6 months. *Ulcera Colli.* Half a dozen of sinuous ulcerations, of from two lines to an inch in length, around the neck, reported unchanged for several months. No intelligible account is given of their origin, but probably they are the result of plasters and scabs covering a few eczematous pustules, forcing the secretion into the subcutaneous tissue. In order to remove the loose flaps of skin which could not be expected ever to adhere again, they were repeatedly and deeply cauterized with solid nitrate of silver, and afterwards the whole surface treated twice a week with light and superficial cauterizations of the same kind. At last, for some weeks, application three times a day of: ℞.—Nitrat. argenti., gr. x.; adip. suill., ʒii. M. f. ung. Granulations formed gradually, and the case turned out well, without leaving a cicatrix except on the spot of the largest ulceration.

54. Mary G., æt. 1 year, 1 month. *Ulcus Frontis.* The child was hurt by a fall four weeks previously. The wound had been maltreated with salves and plasters until a space of a little more than a square inch was in a fair way of ulceration. The surrounding parts, the right side of forehead, was swelled and erythematous, and a little sensitive to the touch. Treatment: Water dressing for three days. After the irritation around the ulceration had subsided, application of: ℞.—Zinc. oxyd. alb., ʒss.; adip. suill., ʒiii.; a small portion to be applied three times a day.

---

* Review of Prof. E. Huschke "On Craniosclerosis Totalis Rhachitica and Thickened Skulls in General, with New Observations of that Disease. Jena, 1858, pp. 54," and in Noeggerath and Jacobi's Contributions, etc., p. 406.

55. Mary F., æt. 1 year. *Kophosis Nervosa.* Patient is reported to have been a healthy child, with the exception of some eruptive fevers, and a small number of attacks of convulsions in early infancy, up to her sixth year. A year ago she appears to have been severely ill, and to have suffered from tonic convulsions ("lock-jaw") for several days, with unconsciousness. She is reported to have recovered very slowly, but to have showed no symptoms of disease except absolute deafness for the last six months. No contractions, no paralysis; pupils normal and equal. On either side external ear normal; tympanum plainly visible, and quite normal; eustachian tube easily entered by the sound. Thus the deafness must be explained by the cerebral disease that had taken place a year ago. Being unable to distinguish the peculiarities of that affection from the poor report given by the mother, it is probably safe to conclude, from the slow and gradual recovery during the first half year, that the disease was one of inflammatory and exudative character; the exudation, of whatever nature it may have been, undergoing a process of gradual retrograde metamorphosis and absorption. Further, from the deafness being unaffected during the last half year, and all the other functions being perfectly normal, it is just as safe to conclude, that the origin of the auditory nerve is still paralyzed by an unabsorbed part of that exudation. Thus, the prognosis is a very unfavorable one, unless absorption may be induced by remedial agents, which is improbable. Treatment: Iodid. potassii, gr. x., dissolved in water, daily. Patient not presented again.

56. John E., æt. 2 years. *Catarrhus Bronchialis.* Expectoration not so free as desirable, as the cough appears to be hard and a little painful. ℞.—Muriat. ammon., extr. glycyrrhyz., ää, ʒii.; aq., ℥iv. M. D. S.: A tea-spoonful every two hours.

57. Johanna R., æt. 8 years. *Adenitis Chronica.* A number of submaxillary glands and the surrounding tissue swelled and indurated for four weeks. No scrofula. Appears to have had a glandular inflammation of an acute character; no pain; no fever. Treatment: ℞.—Iodid. potassii, ʒii.; glycerin, ℥ss., for external use. This formula has always been preferred to the commonly used salve, as its ready absorption is proved by well-conducted experiments, which cannot be said of the old preparation. Further: ℞.—Iodid. potassii, ʒii.; aq., ℥ivss. M. D. S.: A tea-spoonful three times a day.

58. Henry H., æt. 1 year. *Scrofula, Conjunctivitis et Keratitis Exudativa, Catarrhus Meatus Auditorii Externi.* The general symptoms of scrofula well developed, although the child is but a year old; father said to be consumptive. The inflammation of the cornea has resulted

in an organized exudation over the right pupil; both of the external ears discharging freely a whitish, purulent matter; no affection of the tympanum. Treatment: Four daily injections into the ears, after they have been cleansed by injecting water, of a solution of: ℞.—Acid. tannic, ʒj.; aq., ℥vj. Application to the eye of acet. morph., gr. i–ii., repeated several times a week.

59. Katharine W., æt. 3 months. *Teleangiectasia Femoris Sinistri.* A sanguineous tumor of arterial nature, soft and protruding, but not pulsating, two inches long and an inch wide, on the inner side of the left femur, near the groin. In order to show several operative proceedings on this tumor, the lower two-thirds were covered with: ℞.—Tartar. emetic, ℈ij.; emplastr. sapon., ℥ss. Deep pustules commenced to be formed in a few days, and the whole surface was covered with them a week after the first application. They then were allowed to heal up, and cicatrization to commence. The result was satisfactory, no return having taken place for five months. The remaining part was not attended to for the four months following the commencement of the treatment. After this period, an injection was made into the tumor, of a mixture of six drops of Squibb's liq. persulphat. ferri, and eighteen drops of water. Induration of tumor took place immediately, no inflammatory action being brought on, nor any inconvenience produced, but the proceeding had to be repeated before complete obstruction of the blood-vessels took place. (See Appendix.)

60. Frank L., æt. 4 years and 6 months. *Stomatitis Ulcerosa.* Tongue, cheeks, and soft palate covered with round superficial ulcerations; pharynx injected and swollen; fœtid exhalation. ℞.—Chlorat. potass., ℥ss.; aq., ℥viij. M. D. S.: half a table-spoonful every two hours.

61. William B., æt. 7 years. *Abscessus Capitis.* Large abscess on the top of head, soft and fluctuating; incision. Bone not affected. Water dressing.

62. Mary McK., æt. 2 months. *Cephalhæmatoma.* Large elastic tumor, 1½ inches high, 2½ inches in diameter, on the right parietal bone, limited by the coronal and lambdoidal sutures. Was observed on the second day after birth; has increased in size for several days, and then remained stationary. Osseous ring to be felt already; no pain; no discoloration of scalp; child well developed; reported to be treated without success; told that it will get well without treatment.

63. Joseph M., æt. 4 months. *Pneumonia Catarrhalis,* upper lobe of left lung. Patient commenced coughing and sneezing two months ago, and has coughed more or less ever since. A week ago had fever

and dyspnœa, which still continues. Pulse 140, respiration 40–48. Mucous râles over the whole left lung; percussion slightly dull over upper lobe. Child emaciated, and not always able to take the breast. Large fontanel a little sunk, and extremities commencing to get cool. Treatment: Half an ounce of pale brandy a day, and ℞.—Acid. benzoic., gr. viii.; sulphat. cinch., gr. iv.; sacch. alb., ℈ii. M. f. pulv. Div. in p. æq. No. xvi. D. S.: A powder every two hours. Both general condition and local symptoms improved after three days, and treatment continued, without brandy.

64 Eliza R., æt. 8 years. *Coryza Diphtheritica.* A year ago suffered from malignant scarlet fever, during and after which time there were large glandular swellings around the neck. At the same time, the nose was obstructed for a long period. Since which, she has had a mucous or viscid discharge from the nostrils, sometimes with an offensive smell. At present no glandular swellings; not even enlarged tonsils, but they look torn and cicatrized. Mucous membrane of the nostrils, as far as they can be examined without instruments, injected, livid, velvet-like. Treatment: Injections, four times a day, of ℞.—Zinci. sulphat., ʒii.; aq., ℥vj.

65. Francis McC., æt. 5 years. *Tuberculosis* of the right lung, upper lobe. Father died of tubercular phthisis; mother is well; patient is but poorly developed, small and emaciated, chest narrow, subclavicular region a little sunk, hepatic region prominent, and liver enlarged; had measles six months ago, and has been coughing and declining ever since. Dull percussion sound in right subclavicular region and fossa supraspinata; respiratory murmur diminished, with slight mucous râles; puerile respiration on the left side. The diagnosis supported principally by the hereditary predisposition. Treatment: Generous diet, gymnastic exercise, cod-liver oil; general condition apparently improved a month afterwards, but physical symptoms the same.

66. Herrman K., æt. 7 years. *Pneumonia*, right lung, upper lobe. Hepatization; fever moderate; dyspnœa not exceedingly great. Dull percussion sound; bronchial respiration; no mucous râles. Treatment: ℞—Oxysulphur. antimon., gr. xii.; sacch. alb., ℈ij. M. f. pulv. Div. in p. æq. No. xvj. D. S.: a powder every two hours. After three days: Dull percussion sound less extended; mucous râles; same treatment.

67. Elizabeth L., æt. 6 months. *Tinea favosa.* (cf. Case 5.) Repeated cauterization of the fungous deposits, with solid nitrate of silver; and later, concentrated acetic acid.

68. Eugene S., æt. 2 years. *Paralysis Essentialis. Catarrhus In-*

testinalis. The lower extremities are almost entirely paralyzed, the extensor muscles apparently more so than the flexors. This paralysis was first noticed two months ago, without any premonitory symptoms. The child is reported to have been put to bed in its usual health, and unable to move the following morning. A number of such cases are recorded in literature, but a larger number have been reported as having been preceded by some feverish attack. Thus antecedent attacks of eclampsia, inflammatory diseases, eruptive or other fevers, have been observed to have been the ultimate causes of infantile paralysis. At any rate, we are not justified in assuming that infantile paralysis has a different pathology and etiology from that of cases of paralysis in advanced life. It depends on the impaired action of some part of the nervous system; it is the residue of a disease progressing with material alterations in either the nervous centres or the nerves, which either suffer from congestion, or inflammation, or extravasation, with their consequences. These may be removed, sooner or later, by natural processes; thus, either the paralysis is also removed, or it continues in such cases where the nerves have already lost their irritability. As a general rule, such cases of so-called infantile paralysis have a great tendency to improve; for most cases, when they are brought under our observation, have had time to get a little better than they were at the beginning, in consequence of absorption to a certain extent having taken place. In a small number of cases, more limbs are primarily affected than in the present case; as for instance, all the upper and lower, or an upper and the two lower extremities. But after a while, the two lower extremities, or even one of them only, remains paralyzed. But here, the spontaneous improvement comes to a stand-still, and even medical service is sometimes unable to render any services in the recovery of the lost muscular functions. This paralysis, therefore, is a very obstinate disease, and yields no very promising results. But life is seldom threatened by it, all the other functions of the patients remaining perfectly normal; so little, indeed, does it prove fatal, that a French author reports the case of a patient who became paralyzed in early infancy, and reached the age of 49 years, and that very few authors have been so fortunate as to have the opportunity of making a post-mortem examination. Rilliet and Barthez made two post-mortem examinations, in which nothing was found that could be taken as the cause of paralysis; and Fliess, in a case of paralysis of the arm, found congestion of the spinal membranes at about the level of the brachial plexus. From the fact that few cerebral symptoms, or none at all, are observed in cases of infantile paralysis,

we have a right to conclude that the seat of the affection must be sought for, generally, below this centre. Some cases will be produced by influences acting on the peripheric nerves—for instance, rheumatic ones; and such will be those giving the scantiest results of anatomical examinations—a fact which is easily explained by both the exceedingly great difficulties of detecting material alterations in the peripheric course of the nerves, and the length of time that elapses between the first paralytic attack and death. But the vast majority of cases are of spinal origin. Heine even goes so far as to consider none but spinal cases as entitled to be called infantile paralysis, and to describe it by the name of spinal infantile paralysis. In the spine, the same alterations as found in the cerebrum are met with; extravasations are not so frequent in the brain; but there are cases on record, and cases of spinal congestion, inflammation, and exudation, will occasionally occur in practice. The majority of cases will be met with at the age of from six months to two years, at a period when the growth of the body is very rapid, and particularly the development of the nervous centres considerable. At the same time, it so happens that the first dentition takes place also; and as generally a number of diseases, almost all the diseases, indeed, of infantile age that do not proffer a very ready explanation or diagnosis, have been explained by and attributed to dentition, this paralysis occurring in children has been attributed to dentition, and has ever been called dental paralysis, with just as little right as we are justified in speaking of dental meningitis, or pneumonia, or intussusception.

In our case, the probability is, that the premonitory symptoms have been overlooked. A mild fever may have been present without having been noticed; at all events, as there neither are nor have been any cerebral symptoms, we cannot seek for the seat of the disease in the brain; as two extremities are affected, both cotemporaneously and in an equal manner, we certainly have no case of an affection of a peripheric nerve before us. Therefore, we are bound to take it as a case of spinal paralysis. The probability in our case is, that it is the result of congestion, and, as it is of pretty long standing, without any spontaneous improvement taking place, exudation—the former alone being well able to produce paralysis, and the latter being likely to be present unless there is extravasation of blood in cases of longer duration, and exhibiting no change.

The question of therapeutics is a very important one, and will be answered according to the diagnosis of the material lesion and the stage of the disease. In the acute attack, with fever and sensitive-

ness of the spine, etc., local depletion, mercurials, antifebriles, etc., might be indicated. Certainly not so in an old case. Extravasation will scarcely be the object of remedial treatment. Congestion would require, perhaps, local depletion and derivants; at all events, however, such medicinal agents as are known to have some influence in contracting the lumen of the blood-vessels—for instance, quinine or secale cornutum. Exudation would indicate the administration of absorbents, such as mercurials, iodine, and more or less powerful derivants, both external and internal. Loss of sensitiveness of the nerves, finally, without any, or proceeding from a past, anatomical lesion, would require the use of such remedies as are known to act as powerful stimulants for the nervous system, such as nux vomica and its preparations; not to speak of gymnastics, active and passive movements, faradization, frictions, etc., for the purpose of re-establishing the functions of the muscles. Thus, indeed, local depletion, vesication, moxæ, iodine, mercury, and strychnia play the most important part in all the essays on the treatment of infantile paralysis.

Congestion, and probably exudation, are likely to have been the anatomical change in or on the spinal column.

Treatment: Passive movements; secal. cornut. recent. pulv., gr. iii., three times a day; increased to gr. iv. after a week, and v. after two weeks; and syr. ferri iodidi, gtt. v., viii., x., three times a day.

A decided change for the better already, four weeks afterwards, at which time the patient was presented for an intense pharyngitis; for this he took for four days the following mixture: ℞.—Chlorat. potass., ʒiii.; aq., ℥vj. M. D. S.: Half a table-spoonful every two hours.

69. Charles P., æt. 7 years. *Anæmia, Morbus Coxarius*, left hip, first stage. Is reported to have enjoyed good health, with the exception of occasional epistaxis, until three years ago, when he had a hæmorrhage, probably from the stomach. Since that time, he is said to have suffered from strabismus, loss of appetite and flesh, and diminution of mental powers. Ten months ago, he had a feverish disease, with unconsciousness and delirium, for thirteen days. Three months ago, he complained for a week of fever and pain in his left side, but has been well since. Skin and conjunctivæ pale, general emaciation, impulse of heart strong, no enlargement of heart, lungs normal. Fell from a chair five weeks ago; complains of pain and stiffness after getting up in the morning, is easily tired, drags his left foot a little, and has pain in left knee and ankle; some pain on direct pressure on the hip-joint, and more by pressing the caput femoris against the acetabulum. The gluteal region of the affected side commences to enlarge, and the fossa intertrochanterica

to disappear. Thus, the first stage is on the point of being transformed into the second. Treatment: Five leeches to the hip-joint, to be repeated after four days; Davis' splint; generous diet; cod-liver oil, and ferr. pulv., gr. iv. daily.

70. Rosa S., æt. 5 years. *Microcephalus, Catarrhus Intestinalis, Lienteria.* Has an older brother, and a younger sister, both healthy and well developed, both physically and mentally. Circumference of the head 17½ inches; longitudinal diameter being normal; frontal bone low and narrow; anterior part of the cranium very small in proportion to its posterior; cranium solid and hard; face proportionately large, especially the lower maxilla, strong and prominent; lips full and hanging; tongue prominent and thick; constant salivation; no articulation; restless, troublesome, always laughing, breaking anything, passing fæces and urine carelessly; sleep sound, with the exception of sudden interruptions; extreme voraciousness; swallows everything, clean or dirty; a large number of ingesta, food and other, will pass the bowels unchanged; frame robust and strong; the mother knows that this patient exhibited no pulsation over the region of the large fontanel, like her other children. The anatomical cause of this microcephalus and idiotism is evidently a precocious ossification of the cranial sutures, particularly the frontal and coronal. No medical treatment possible.

71. Mary V., æt. 5 years. *Kyphosis* of seventh and eighth dorsal vertebræ.

72. Ann M. L., æt. 1 year, 5 months. *Kyphosis* of the seventh and eighth dorsal vertebræ.

73. Wilhelmine B., æt. 5 years. *Kyphosis* of the last dorsal vertebræ.

74. John G., æt. 2 years. *Kyphosis* of twelfth dorsal and first and second lumbar vertebræ.

75. Thomas D., æt. 8 years. *Kyphosis* of lower cervical and upper dorsal vertebræ.

76. John K., æt. 2 years, 8 months. *Kyphosis* of seventh cervical and first and second dorsal, and of twelfth dorsal and first and second lumbar vertebræ.

All these cases of Pott's disease that were presented at the clinic had so many symptoms and peculiarities in common, that they may safely be mentioned together. Scarcely in any one of them was there a scoliotic deformity combined with kyphosis, and there was only one case out of six not decidedly scrofulous. Only one out of the whole number had the same affection in two different parts of the vertebral column, viz., No. 76. He had never been a thoroughly healthy boy;

the first symptoms of rhachitis still perceptible in the enlargement of his epiphyses and curvatures of his legs; he further had been suffering from pulmonary troubles since he had measles, when a year old. Mucous râles are still heard on both sides; bronchial respiration in the upper lobe of right lung, and decidedly dull sound in right subclavicular region. During the time he was presented, we had frequent occasion to prescribe for a new attack of bronchitis. He was extremely emaciated, his submaxillary glands much enlarged, and eyes suffering from chronic conjunctivitis. Three months after he was first presented, he all at once, in addition to his former sufferings, showed symptoms of the second stage of morbus coxarius. About a week after this, he was taken ill with an acute feverish disease, probably of one of the thoracic organs, the nature of which may, or may not, have been explained by a coroner's inquest, no medical man having been in attendance to make a diagnosis.

In almost all the cases, a fall was accused of having been the *causa proxima* of the affection. Pain over and in the neighborhood of the affected vertebræ; moderate fever; sometimes hyperæmia of the skin; immobility of the vertebral column; disinclination to walk or stand; tendency to support the body by pressing the hands down on the femur; absence of almost any symptoms of spasm, or paralysis, or suppuration, was found uniformly in all of them.

The treatment was somewhat uniform also; at least, as to the care given to the general health. Generous diet, cod-liver oil, and, in the majority of cases, the internal use of iron or quinine. Quinine was generally given as a tonic, in more frequent and small doses; in some cases in single daily doses, of from five to eight grains, as an antifebrile. The patients were kept in a horizontal position, on their back or side, for a sufficient time to reduce the acute pain, and at the same time, in some cases, leeches were applied repeatedly; in others, tinct. iodin. for some time. Then, at last, an apparatus was advised, and usually made by Messrs. Otto & Reynders, to support the trunk without inconvenience to the inflamed vertebræ, and without the least direct pressure on the curvature. In one of the cases its effects in removing the pain, evidently produced by spasmodic action of the longissimi dorsi, etc., was wonderful; the child had complained of this pain continually, both in the erect and the supine positions, before the use of the apparatus, but was so entirely relieved while it was on, that she refused to sleep without it.

77. Maria B., æt. 9 years. *Atrichia Circumscripta.* Patient is a healthy-looking child, with well-formed head and soft and thick hair.

There are, however, on the lateral, and particularly on the upper and posterior portion of the scalp, some twenty or thirty spots, of the average size of a Lima bean, entirely bald, and of a white appearance; they are not covered with any secretion or scab, but they are elevated, forming small tumors. All those which have recently arisen are somewhat painful on being pressed; those, however, of longer standing are not sensitive. The whole process commenced a year ago; in no instance has hair grown again where it once fell out. Before a microscopical examination was made, and before the idea of a parasitic origin of the disease was thereby suggested, the following prescriptions were given: ℞.—Liq. hydriodat. arsenic. et hydrarg., (Donovan,) ℥ss. D. S.: 8 drops to be taken twice a day. ℞.—Bichlorid. hydrarg., ʒi., aq. ℔. v. M. D. S.: for external use. The microscope showed the absence of fungi, and the case was then taken, the symptoms, moreover, perfectly corresponding with this diagnosis, as one of inflammation and induration of the follicles, with lasting pressure on, and injury to, the roots of the hair. Treatment: ℞.—Iodid. potassii, ʒij.; aq., ℥iv. M. D. S.: A tea-spoonful three times a day. ℞.—Iodid. sulphur., ℈j.; adip. suilli, ℥j. M. f. ungt. D. S.: For external use, three times a day. When last presented, no new bald places had arisen, and the old ones were less indurated, but no hair had as yet reappeared.

78. Isidor H., æt. 5 months. *Hæmorrhagiæ Subcutaneæ et Meningum.* Mother of patient is a dirty, thin, poorly nourished woman, with flabby breast, with other children who never showed similar symptoms. Patient is a small child, with thin lower extremities, otherwise apparently well developed, but with sallow skin generally, and enlarged liver. On his cheeks, temporal bone, chest, abdomen, back, in short, over all the surface of his body, the skin is of a dark livid, brownish color, elevated and hardened, to compare with the induration and elevation of urticaria. But the circumference of those spots is larger, being from one to six or eight square inches in size. Thus, the color and nature of the disease being evidently of petechial character, the local affections are enormously larger. Gums not affected. Lower extremities paralyzed for some time; as long, indeed, as the hæmorrhages have occurred under and in the external skin. Thus, the assumption of hæmorrhage inside the vertebral column having taken place contemporaneously with the others, is more than probable. Further, the assumption of local affections being the cause of the hæmorrhages, almost countless in number, must be given up. The cause must be looked for in either a thorough change in the composition of the blood,

or a decomposition of the walls of the blood-vessels, or both. For such only are the means of explaining the hæmorrhages occurring in all the cases of poisoning and decomposition of the blood, as in purpura, scarlatina, typhoid fever, scurvy, and others. Treatment: Regulation of diet, fresh air, beef, etc.; acids, both vegetable and mineral, carefully to be avoided—because, contrary to the belief in the styptic powers of acids, nothing will add more to the decomposition of the blood than a continued administration of acids; and ℞.—Tinct. fer. muriat., five drops every four hours. This was from time to time changed for syr. ferr. iodat. in similar doses, but the treatment has been continued ever since, for five months. Child meanwhile thrives; hæmorrhages gradually change their color into a greenish-yellow; no new ones make their appearance, and those existing lose considerably in intensity; the motory power of the lower extremities greatly improved.

79. Leonard H., æt. 3 years and 6 months. *Phlegmone, Cellulitis, and Periostitis* of first toe, right foot, caused by traumatic injury. Intense pain for some weeks past; toe of a deep-red color, nail thrown off; abscess near matrix. Treatment: Deep incision to the bone of the last phalanx, and cold water to the part; after some days, application of Goulard's water with tinct. opii.

80. Michael T., æt. 4 months. *Eczema Capitis.* Apparently mild case, but is likely to prove obstinate, as probably the breast-milk of the mother, now constituting the only food, is insufficient nourishment. Treatment: Soap and water, and frequent application of zinc. sulphat., ʒj.; axung. porci., ℥vj.; continued for several weeks before the scalp appeared entirely clean. Returns after two months with the same symptoms, the eczematous scabs being even thicker than before. Treatment: Two meals daily, (in addition to breast-milk, which appears very white and heavy,) of beef-tea, well salted; and ℞.—Liq. potass. caust., ʒj.; ol. morrhuæ, ℥j. M. D. S.: To be applied twice a day.

81. Samuel D., æt. 5 years. *Terrores Nocturni ex Febri Intermittente. Spasmus Vesicæ Urinariæ.* Is well all day, takes his food regularly, his supper at 6 P. M., goes to bed between 8 and 9 P. M., awakes with feverish symptoms and night terrors between 10 and 11 P. M., and can hardly be quieted before midnight. Digestive organs in order; no constipation; no worms; heart normal, both in anatomical condition and function; no cerebral symptoms except those mentioned; this condition of things has come on suddenly, and has continued for more than a week; moreover, he has a constant inclination to pass urine; its emission is scanty and painful; no mucous deposits reported to have been observed by the father. Treatment: ℞.—Sulphat.

cinch., gr. xv. Div. in p. ii. D. S.: a powder at 7 o'clock, P. M., on two subsequent days; besides, ℞.—Pulv. rad. belladonn., gr. viii.; sacch. alb., ℈ij. M. f. pulv. div. in p. æq., No. xvj. D. S.: three powders a day. Reported to be well after a week; no more night terrors after the first dose of quinine.

82. Francis P., æt. 7 years. *Dentes Incisores Obliqui.* The middle permanent lower incisors have protruded before the temporary had fallen out, and point inward and upward. The temporary teeth extracted.

83. Charles B., æt. 2 months. *Frenulum Linguæ Oblongatum.* Incision.

84 James A., æt. 9 years. *Dilatatio Cordis. Anæmia.* Patient is believed to have been well during the greater part of his life, but for two months past he has been exposed to five attacks of a peculiar nature. Shortly after falling asleep, he awoke with twitching of the muscles of the right side of face, which lasted about a minute; after this his limbs got slightly rigid, a rattling noise was heard in his throat, his face grew pale, and his mental faculties seemed somewhat obnubilated for a short while; meanwhile his health otherwise, and his appetite, are not impaired. A younger sister of patient fell sick half a year ago with attacks of convulsions; she died after four weeks' illness. A brother of twenty-one years of age died after an illness of eighteen days, after having previously repeatedly suffered from palpitations of the heart; they would return in a very troublesome manner whenever he partook of stimulants during his malady. He died suddenly, after half an hour's palpitation of the heart, brought on by taking a small quantity of brandy-punch. This patient is very tall for his age, thin and pale; conjunctivæ very anæmic; impulse of heart and pulse very feeble; pulse 116; external veins on thorax and abdomen greatly injected; dull sound on sternum and left side of thorax, from third to sixth ribs; attacks of weakness and syncope from time to time. Treatment: Air, generous diet. ℞.—Ferr. carbonat., ʒj. Div. in p. æq., No. xxx. D. S.: three powders daily. This treatment was continued for a long time, and patient was, and felt, greatly improved.

85. Maria M., æt. 2 years. *Stomatitis. Amygdalitis.* Mucous membrane of the mouth, tonsils, and pharynx highly injected; tonsils swelled, and to be felt externally; tongue red; papillæ clavatæ elevated; breath not particularly fœtid; submaxillary or cervical glands not particularly swollen. Treatment: ℞.—Chlorat. potass., ʒiii.; aq., ℥vi. M. D. S.: A tea-spoonful every hour.

86. George B., æt. 6 years. *Rhachitis.* Is reported to have been

affected with scarlatina when eight months old, this being about the only sickness he has ever suffered from. He is not well developed; his frame small; face and general appearance anæmic; intellect good. The upper and lower condyles of tibiæ are greatly swollen; so is the lower of the radius; tibiæ show curvature inward; sides of the thorax flat, there being nearly a right angle in about the half length of all the ribs; sternum prominent; no scoliosis; impulse of heart very strong; sounds audible at a great distance; no disease of the lungs, except general compression. Treatment, besides regulation of diet: ℞.—Ferri. phosphat., gr. iv., three times a day; cod-liver oil.

87. Thos. J., æt. 4 years. *Fractura Claviculæ, extr. Acromialis.* Clavicle was fractured in its outer third, transversely, from a fall on the hand and elbow. Treatment: Mitella, fastened by a few pins. Presented well a fortnight after.

88. James A., æt. 9 years. *Herpes Circinnatus,* (ringworm,) on four distinct localities on abdomen and right femur, of a quarter of an inch to two inches in diameter. ℞.—Sulphat. ferri, ʒj.; Cerate simplic., ʒvj. M. f. ungt.

89. George F., æt. 12 years. *Prolapsus Recti.* Had dysentery last year, and has suffered from prolapsus of the rectum since. The rectum, with all its membranes, will protrude about an inch and a half through the anus after each defecation, viz., twice or three times a day. The mucous membrane will frequently bleed, is livid and swelled. Treatment: ℞.—Ext. nuc. vom. alc., ℈j.; cerat. simplic., ʒij. M. f. ungt. The size of a bean to be introduced three times a day. Reported a week after so much better, that sometimes a defecation will take place without prolapsus, and that the rectum will generally protrude but once a day. Treatment had, however, to be continued for six weeks.

90. John O'L., æt. 3 years, 3 months. *Prolapsus Membranæ Mucosæ Recti.* The mucous membrane will protrude after every defecation, (1 or 2 a day,) for a little more than half an inch. Patient has been suffering from chronic intestinal catarrh for a number of weeks, and has not been well for more than a fortnight. ℞.—Acid. tannicæ, ʒiii.; aq., ℔. iii. M. D. S.: An injection of an ounce to be made three times a day.

91. George C., æt. 2 months. *Fungus Umbilicalis.* Firm cicatrization has never taken place after the falling off of the funis, but a pediculated excrescence has been observed growing from the wound for a number of weeks. Now it has reached the size of a bean. Treatment: Ligature.

92. Esther B., æt. 4 months. *Intertrigo.* The folds of the neck, groins, and femur are partly erythematous, partly ulcerated, after having lost their epidermis. The child is well, fat, and hearty; no diarrhœa; no morbid predisposition probable. ℞.—Sulphat. zinci., ℥ss. D. S.: To be dissolved in a quart of water, and applied externally.

93. N. M., æt. 4 months. *Intertrigo.* The folds of neck and groins erythematous. No ulcerations. The child, when presented, was wet and dirty. Scrofulous; cleanliness and cold water recommended. Three days after, still erythema. Goulard's wash.

94. Mary L. D., æt. 3 months. *Atheroma.* A small circumscribed tumor of the size of a small revolver ball, on the outer end of left superciliary arch; not painful; believed to have been caused by a fall some weeks ago. Treatment: Subcutaneous discission and pressure. A clear, viscid liquid was squeezed through the external wound.

95. Ann L., æt. 12 years. *Chorea Minor.* Involuntary movements of all the voluntary muscles, particularly of the right side. Difficulty in speaking, swallowing; twitching of the muscles of the face; sometimes, for a short time, strabismus. Has been in about the same state for three months, without any premonitory symptoms, or without any preceding disease except a mild intestinal catarrh. No pulmonary symptoms; no heart disease. Never had acute rheumatism. Is very tall for her age, and anæmic; impulse of the heart pretty strong; cheeks and conjunctivæ pale. No fever. Treatment: Solut. arsenic. Fowler, ℥ss. D. S.: three drops three times a day; and ℞.—Syr. ferri iodid. D. S.: twenty drops three times a day. Presented, after three weeks, greatly improved.

96. Charles L., æt. 9 months. *Vaccination* performed.

97. Peter L., æt. 8 years. *Helminthiasis.* A number of ascarides have been passed, previous to which, the boy had suffered for months from restlessness and occasional night terrors; from diarrhœa alternating with constipation, and loss of appetite, interrupted by voraciousness. Cheeks bloated. Pupils enlarged. Treatment: ℞.—Santonia., gr. viii.; Submuriat. hydrarg., gr. xv. M. f. pulv. div. in p. æq. vj. D. S.: Take three powders a day.

98. Edward P., æt. 12 weeks. *Eczema Capitis. Constipatio.* A brother of this patient, now three years old, has had an eczematous eruption since his fourth month. Thus, there is probably a morbid condition common to both, or the cause is to be sought for in the breast-milk of the mother. Child is mostly constipated, having a passage once a day, or once in two days. Fæces look white, curdled, are hard, and not of a uniform character. The milk of the mother

looks also whiter, and is less sweet than normal. Thus, at all events, there is some fault in the nutrition of the patient, being the probable cause of both eczema and constipation, viz., superabundance of caseine in the composition of the milk. By restoring a more normal composition, we shall probably remove one, and greatly relieve the other of the two complaints. Evidently, there is sugar wanting in the mother's milk, if nothing more. By restoring the power of producing lactic acid, the caseine will be digested and assimilated, and the bowels will no longer remain constipated. Treatment: Give the child, each time before he is put to the breast, a tea-spoonful of powdered white sugar in a little water. Wash the head with soap and water thoroughly, three times a day, and afterwards rub it with, ℞.—Zinc. oxyd. albi, ʒj.; adip. suilli, ʒij. M. f. ungt. Child had no constipation when presented a fortnight afterwards; fauces yellowish and uniform. Eczema doing well.

99. Ellen McK., æt. 4 years. *Broncho-Pneumonia, Rhachitis, Anæmia.* The girl is emaciated and anæmic from two causes. She has been rhachitic for years, and suffering from bronchitis and pneumonia for six weeks. Her limbs show the symptoms of rhachitic curvature and intumescence; her ribs are laterally compressed; cheeks and mucous membranes very pale. Percussion sound dull over left fossa supra-spinata; mucous râles over left lung, both anteriorly and posteriorly. No fever, no dyspnœa, both of which are reported to have been very intense some weeks ago. As the pulmonary symptoms are evidently diminishing spontaneously, the greatest care is to be given to the general health; the more so as the appetite is very low, tongue furred, and pulse small and frequent. Treatment: Nitrogeneous food, fresh air, and ℞.—Sulph. cinchon., ℈j.; subnit. bismuth, ʒss. M. f., pulv. div. in p. æq. No. xii. D. S.: Three powders a day. This prescription is again given after some days, and digestion being in fair order, cod-liver oil recommended.

100. Mary D., æt. 1 year, 2 months. *Oxyuris Vermicularis.* For a number of weeks the child has been observed to scratch his anus and genitals, both of which are hyperæmic. Slight discharge from vagina. Tenesmus. A number of oxyurides have been found in the evacuations. Treatment: Injections once a day, for three days, of a fresh-made decoction of garlic in milk. Cold water externally.

101. James T., æt. 8 months. *Eczema Capitis.*

102. Edward P., æt. 3 months. *Eczema Faciei et Colli.*

103. Conrad G., æt. 5 years. *Eczema Capitis et Faciei.*

104. Eliza C., æt. 3 years. *Eczema Capitis. Rhachitis. Catar-*

rhus meatus auditorii externi. Of these cases of eczema, 101 and 102 were such as are very common in general practice; cases of eruption attending the normal development of early infancy. The seat of the greatest intensity in this development appears to be in both the solid and soft parts of the head, exhibiting not only in its normal effect the rapid growth of the bones of the cranium and face, the process of dentition, and a high temperature of the cranium, but also, as morbid symptoms, an exceedingly great inclination to convulsive and exudative diseases. Thus it happens that these eruptions are, under different names, often considered not as co-ordinates of, but as results from, a coincident process, viz., dentition. Now, as they are, in many cases, to be taken as excesses of a normal process, it follows, first, that eczematous eruptions, of long duration and great intensity in very young children, must not be suppressed at once, (cf. 38,) and further, that such cases are apt to prove very obstinate; the more so, as in a number of cases some errors of diet, sometimes arising from a defective constitution of the breast-milk, are amongst the causes. 101 and 102 were ordered to have the scabs removed by the frequent use of soap and water, and three times daily: ℞.—Zinc oxyd. alb., ʒj.; adip. suilli, ʒvj. M. f. ungt.; and in addition, the diet of the first was changed, so as to be more animal. 103 was a very hearty and stout boy, with hard and solid scabs all over his head and face, nose and eyelids scarcely excepted, covering a layer of pus and the sore scalp. The layer of dried-up pus, epithelium and dirt was so thick, (from $\frac{1}{12}$–$\frac{1}{4}$ inch,) that the features of the boy could not be recognized. He was reported to have been affected with this eruption for the last four years; that it sometimes had disappeared, but always returned. This case was ordered to be submitted to a universal combing, oiling and soaping, and to be presented three days afterwards. From this time forward he was washed, five or six times a day, with a solution of sulphate of zinc in water, (gr. vj.–xii. to ℥j.) 104 was a poorly-looking girl, with eczematous pustules all over her head, after like pustules had disappeared from the whole surface of her body, with symptoms of generally bad development. Glands were found to be swelled around her neck in a larger number than could be explained by the presence of the eruption; even some of the inguinal being tumefied. Catarrh of the external ears, with muco-purulent discharge, had been observed for several months, without there being an affection of the inner ear or the tympanum, and the large fontanel was still open. As this is closed, not by osseous matter, but a solid fibrous bridge to such an extent as not to allow the pulse to be felt through it, at thir-

teen or fourteen months of age, in normally developed children, this case exhibits a decided want of development in the osseous system. Moreover, the lower extremities show curvatures, and the radial extremities of both forearms are swelled. The discharge from the external ear was submitted to injections of: ℞.—Sulphat. zinci, ℈ij., aq. ℥vj., three times a day; the eczematous eruption treated with soap and water, and ℞.—Acid. tannic., ʒj; adip. suilli, ʒvj. M. f. ungt. D. S.: To be rubbed in three times a day; and the general constitution improved by mostly an animal diet, and the use of three doses daily of half a table-spoonful of cod-liver oil, with ten drops of syr. iodid. ferri.

105. John S., æt. 5 years. *Herpes Circinnatus* (Ring-Worm) on four different places of left shoulder, neck and face, of a diameter of from half an inch to nearly two inches. ℞.—Sulphat. zinci, ʒj.; adip. suilli, ʒvj. M. f. ungt. D. S.: For external use, four times a day; the same dose repeated after a week, when the boy was not yet quite well.

106. Catharine B., æt. 3 years. *Atrichia Localis. Erythema et Eczema.* The child had been severely burned over and near her large fontanel when four months old. No hair had grown there since, but the spot had almost always been sore. Usually there would appear small herpetic or eczematous vesicles, that would dry up and fall off after a while, leaving a sore and sensitive surface. The skin had never looked natural. Treatment consisted in the frequent application of a solution of bichloride of mercury in distilled water, (gr. j. to ℥j.) The color and consistency of the skin grew more natural from week to week, but the local baldness was not removed.

107. Patrick T., æt. 4 years, 6 months. *Catarrhus Laryngis.*

108. Mary R., æt. 5 years. *Catarrhus Laryngis et Pharyngis.*

Both of these patients have the peculiar croupy cough depending on catarrhal affection of the mucous membrane of the larynx, without any affection of the bronchi or lungs, and with very moderate fever. 107 was soon relieved by the use of syr. squill. compos., 15 drops every two hours, and a single dose, at bedtime, of pulv. Doveri, gr. iij. The other had been affected with measles fifteen months before, and was said to have coughed ever since. Consonant mucous râles occasionally heard over the bronchi, but none that could be attributed to an affection of the bronchial mucous membrane itself; no diminution nor abnormal harshness of respiration; no dull sound on percussion. If, indeed, cough has been present all the time, it cannot be explained by any pulmonary trouble, but depends on the

catarrhal affection of the larynx and pharynx alone. This assumption is the more justified, the more it is proved by facts, that there are few more obstinate affections than chronic pharyngeal catarrh. Treatment: Tinct. iodin. externally to the throat, twice a day. Pulv. Doveri, gr. iij., every night. Acid. benzoic., gr. j., every two hours for some days; after which time, as the patient commenced to feel relieved and to cough less, the expectorant was discontinued. The other treatment continued for some time, with good results.

109. Eliza S., æt. 1 year, 8 months. *Bronchitis.*

110. Jeremiah G., æt. 10 months. *Bronchitis.*

111. Edward D., æt. 3 years, 9 months. *Bronchitis.*

None of these cases could be called severe. The diagnosis was easily made, by the presence of sibilant and mucous râles; the former predominant in 109 and 111, the latter in 110, (in 111 on the left side only,) and the chest being sonorous on percussion. Fever moderate; some dyspnœa in all of them. No crepitating râles nor dullness, no paroxysms of cough. In none of them was the disease a secondary affection, and all of them got well in a few days. Internal treatment of 109: ℞.—Oxysulphuret. antimon., gr. viij.; extr. hyoscyam., gr. iv.; sacch. alb., ʒss. M. f. pulv. Div. in p. æq. xvj. D. S.: A powder every three hours. 110: ℞.—Muriat. ammon., extr. glycyrrhyz., ää., ʒij.; aq., ℥iij. M. D. S.: A tea-spoonful every two hours. 111: ℞.—Oxysulphur. antimon., gr. xvj.; sacch. alb., ℈ij. M. f. pulv., div. in p. æq. No. xvj. D. S.: A powder every three hours. ℞.—Pulv. Doveri, gr. iij., every night at bedtime.

112. James J., æt. 7 years. *Tuberculosis*, left lung, upper lobe.

113. Edward D., æt. 3 years, 7 months. *Pneumonia*, left lung.

114. James McC., æt. 2 years, 3 months. *Bronchitis*, right lung. *Pneumonia*, left lung, upper lobe.

115. Joseph F., æt. 14 years. *Pneumonia Bilateralis.*

116. Joseph McC., æt. 4 years. *Pneumonia*, right lung. *Rhachitis.*

Of 112 no exact history could be obtained, except that the patient had been coughing and suffering for a long time. Father said to be affected with some pulmonary trouble. Mucous râles all over the chest, especially in the right subclavicular region; here, also, decided dullness on percussion. Dyspnœa moderate. Pulse 124; respiration 34. Looks anæmic, and is evidently much emaciated. Was taken to be a case of pneumonia, right lung, upper lobe, accompanied by general bronchial catarrh, in its third stage, the hepatized parts being presumed to undergo a process of resolution. No treatment was, therefore, thought advisable, except ℞.—Sulphat. quin., ʒss., div. in p.

æq. vj. D. S.: A powder every morning. After a week, the patient was again presented. Very few mucous râles; a few sibilant râles. Dullness in right subclavicular region as distinct as before; respiratory murmur vesicular, and diminished; respiratory murmur in left subclavicular region, puerile; expiratory murmur prolonged. Nowhere bronchial respiration. Moreover, right subclavicular region sunk, and right thorax of less circumference than left, by half an inch. From this time, the case was considered to be one of tuberculosis, and an appropriate diet, animal food, fresh air, gymnastic and other exercise, and cod-liver oil, ordered. No. 113 was a very anæmic boy, who had suffered from the first attack of scarlatina five weeks before. Thus he had scarcely gone through the whole process. This pneumonia was in the left lung, lower lobe, and probably small lobuli had taken part in the inflammatory process in other places, as there were sibilant and mucous râles spread over the lungs to a large extent. Treatment: Pulv. Dov., gr. ijss., every night; sulphat. quin., gr. vj., every morning. No. 114 was a very instructive case, inasmuch as it distinctly showed the relation of bronchitis and pneumonia in the infantile lung. When first seen, the child had bronchitis in the right lung, and a hepatized upper lobe of the right. Treatment: ℞.—Sulphat. quin., ℈ij.; acid. tannic., gr. viij. M. f. pulv. Div. in p. æq. No. xvj. D S.: Two powders a day; and pulv. Dov., gr. ijss., every night. A week afterwards the hepatization had disappeared, no dullness being perceptible any longer; but where there was bronchitis before, hepatization had now taken place. Under a similar treatment, the boy soon recovered, but some time elapsed before his anæmic and general weakness was overcome. All the time, no sequelæ of scarlatina were observed. Still better than in this case, the relation between bronchitis and pneumonia, and the normal course of this latter disease, was illustrated by No. 115, a boy of fourteen years, in whom the disease had the peculiar lobular character of infantile age. He was presented on April 5th, with pneumonia, (hepatization,) in right lung, upper lobe, anteriorly, and bronchitis on left side. Treatment: Generous diet, and ℞.—Sulphat. quin., gr. xij.; ac. benzoic., ℈j.; gum-arabic, ʒss. M. f. pulv. Div. in p. æq., No. xvj. D. S.: A powder every two hours. April 9th.—Dullness over right lung, upper lobe, diminished; some mucous râles. Bronchitis on left side apparently in the same condition. Same treatment, with the addition of some daily doses of bismuth. subnitrat., gr. v., as his digestive powers were very low in consequence of an inveterate gastric catarrh. April 12th.—No more dullness on percussion over the right lung; some mucous râles; some also in the lower lobe, right lung, where no

infiltration had been before discovered. Dullness on percussion over left lung, upper lobe, posteriorly, with bronchial respiration. April 16th.—Vesicular respiration in right lung, and lower lobe left lung. Mucous râles in, and slight dullness on percussion over left lung, upper lobe. No fever, no dyspnœa, and appetite good. Patient was not presented afterwards. No. 116 was one of the frequent cases of lobular pneumonia in children whose constitution has never been good, and whose lungs are, in connection with the rhachitical misdevelopment, very subject to catarrhal affection. Such are the very cases that eminently show the necessity of tonic and restorative diet and treatment during the course of a large number of diseases of infantile age, even such as are often believed, from their inflammatory character, to require antiphlogistics, derivants, etc. Such are the cases in which quinine in large doses will prove to be the best antiphlogistic. Treatment: ℞.—Sulphat. quin., ℈j. Div. in p. æq., iv, D. S.: A powder to be taken every morning and afternoon. Two days afterwards, when the fever was less, and hepatization had fairly commenced: ℞.—Sulphat. quin., acid. benzoic., aä., ℈ij. M. f. pulv. Div. in p. æq., No. xx. D. S.: Give three powders every day.

117. Rudolph M., æt. 1 year, 4 months. *Hernia Inguinalis Sinistra.* Patient has had his inguinal hernia, left side, for a year. Nothing as yet has been done for it. Treatment: Truss, to keep back the hernia until the gradual change in the direction of the inguinal canal, taking place in early infancy, will have brought on a radical cure.

118. Benjamin B., æt. 3 years, 9 months. *Otitis Interna.* Patient had scarlatina a year ago, and hypertrophic tonsils still. Was observed to have a running ear soon after the scarlet fever. Discharge sometimes copious, sometimes little, white, yellowish; in rare instances bloody or serous. Smell sometimes offensive; tympanum perforated, and discharge evidently from the internal ear. Hearing on the left ear impaired. The disease is evidently the result of the throat complication of scarlatina, transmitted through the Eustachian tube into the internal ear. Prognosis, after the process has lasted so long, unfavorable as to a perfect restoration of hearing on the left ear. Treatment: Blister on the mastoid process; utmost cleanliness, and injections of a solution of tannic acid in water, gr. iv. to ℥j.

119. Catharine T., æt. 11 years. *Stomatitis, Pharyngitis. Adenitis Submaxillaris.* Inflammation of the pharynx and mouth was complicated with swelling of the submaxillary glands to such an extent as is usually seen in diphtheritic inflammation only. But no membranes, nor any ulcerations which could have been the seat of previous mem-

branes, were visible. ℞.—Chlorat. potass., ℥ss.; aq., ℥viij. M. D. S.: Half a table-spoonful every two hours.

120. N. B. McF., æt. 3 years, 3 months. *Febris Exanthematica.* Pulse 140; respiration 36; face flushed, and head very hot. General temperature of all the body high; tongue slightly furred. Mouth hot, and pharynx somewhat injected; tonsils and some lymphatic glands in the neighborhood a little swelled. No cough, no diarrhœa. Threw up once. No local disease being found, the case was pronounced to be probably one of exanthematic fever, and a daily dose of sulphat. quin., gr. vj., recommended. Three days afterwards the child was reported to be suffering from scarlatina.

121. Michael C., æt. 4 years. *Ascites.* Patient had scarlatina ten months ago; two months after this affection the dropsical swelling of the abdomen was noticed. Other accounts are difficult to obtain. No anasarca, no local pain; no local disease except the abdominal effusion discovered. The case was therefore, before an examination of the urine could be made, taken as one of hydrops depending on albuminuria, and tannic acid, in three daily doses of two grains each, was given for a fortnight. Meanwhile no albumen was found in the urine, nor did the closest examination of every single organ reveal any anatomical degeneration that could be considered to be the cause of the disease. The liver alone could not be subjected to a sufficiently rigid examination, from the expansion of the abdominal cavity with liquid. The treatment was therefore merely symptomatical and palliative, with the intention of stimulating the secretions of other organs. ℞.—Infus. colocynth., (e. gr. xij. parat.,) ℥iv., liq. ammon. acetat., syr. squill, ää., ℥j. M. D. S.: Half a table-spoonful four times a day. The dose was gradually increased, until the perscription was this: ℞.—Infus. colocynth., (e. ℈ij. parat.,) ℥iv. ss., iodid. potassii, ʒv., liq., ammon. acetat., syr. squill, ää., ℥j. M. D. S.: Half a table-spoonful four times a day. The boy was under our care about seven weeks altogether, and was improved, but not cured.

122. Sarah R., æt. 11 years. *Meningitis Spinalis.* When patient was first presented, on April 19th, the following history was given: She had measles in January, 1860. Afterwards, she constantly complained of pain in her back, which gradually increased until in May, 1860, her locomotory power was somewhat affected. She, nevertheless, walked till August, when she lost all power over her limbs, and when sometimes "the water would stop," the catheter had to be used at different times, and excruciating pain was felt all through her body. Two months before she was presented, the first convulsions were noticed. She would violently shake upper and lower extremities, and

would bite; at the same time her eyes would be shut. The color of her face would not be changed much, and patient felt very much exhausted after such an attack. She would know when she was going to be taken with convulsions, which would come as frequently as eight or ten times during a day, and twice or three times during a night; every attack lasting from three to four minutes. All the weeks before she was presented, she had five or six attacks every day; and she was sure never to miss a day without having convulsions. Her mind appears to be intact; her appetite is moderate; thirst increased; pulse averages 118–120; bowels costive; water is passed slowly. Vertebral column is painful, both spontaneously and on pressure. There is no vertebra on which pressure is well borne; but the sixth and seventh cervical, and first, fourth, eighth and twelfth dorsal vertebræ are exceedingly sensitive. Only a limited motion is possible in the upper extremities; the hands are contracted, the flexor muscles overcoming the counteraction of the extensors. The same contraction is noticed in the toes of either foot. Both lower extremities paralyzed. The diagnosis was pronounced to be spinal hyperæmia, and a treatment was commenced according to the principles laid down recently by Brown-Séquard. It has long been supposed or known, that there are remedies that have a direct influence on the size of the blood-vessels; for instance—cinchona. On several others, Brown-Séquard has made very careful and accurate investigations, viz., on ergot and belladonna. He attributes to ergot the power of contracting the elastic layer of the blood-vessels, and vindicates to belladonna a similar action; so much so, that it would prove the exact contrast to opium, which is known to dilate the lumen of blood-vessels. Ergot is declared to be of excellent service in hyperæmic conditions of the spine and consecutive paralysis; whereas, strychnia, which has been the routine remedy in any and all spinal diseases complicated with paralysis, is indicated in such only where there is anæmia. Without, however, going into details here, I wish to add, that in a separate article I hope to expose other experiments and observations on the use and effect of ergot. Our patient was considered to be a fit subject for the administration of ergot, and the following prescription given: ℞.—Infus. secal. cornut. (e ʒjss, cum acid. sulphur. dilut. ♈j. parat.) ℥iv.; sulphat. quin., ʒss. M D. S.: a tea-spoonful every three hours. No local applications; no derivants whatsoever. On April 10th, she had two attacks; on April 11th, a very short one. Not a single attack since. On the 16th, a few drops of laudanum were administered, to check a diarrhœa; on the 30th, the ergot employed for the infusion was increased to ʒijss.; and on the 7th of May, when it was thought proper to give a chalybeate for her

general anæmia, complicated with epistaxis at the same time, tinct. muriat. ferri, gtt. xij., was ordered to be taken three times a day. About this time she not only had no attacks of convulsions, but recovered the power of her lower extremities. She was presented to the class on May 24th, when she was able to walk, and the pain in her back was nothing compared with what it had been. After this time, she was taken, from a cause unknown to us, with catarrh of the stomach; so much so, that she commenced vomiting. Subnitrate of bismuth, carbonate of iron and alkalines, appeared not to operate so rapidly as we desired, and the condition of the stomach seemed to counter-indicate the use of the ergot; of Squibb's fluid extract I at that time had no reliable information. After ten days, during which time our patient had not taken ergot, she was again taken with convulsions. It was prescribed again, but according to what has been learned afterwards, it had probably not been taken. I then availed myself of the kindness of the directors of the Jews' Hospital, who permitted the patient to be transferred into one of their wards. There I commenced the administration of ergot again, and with the result that no convulsions were observed for a day or two. Slight twitchings were observed on the day of her transportation, and she complained much of pain in her back; but she soon felt better. Her stomach was still disordered, and in order to perfectly restore her digestive powers, I omitted ergot for a short time, ordering, however, a daily dose of quinine and gr. ss. of extr. belladon., three times a day. She had no convulsions, and recovered her appetite in two days, when she was clandestinely over-fed by her mother on the next visiting day. Again she vomited, throwing up immense quantities of indigestible food, but had no convulsions. Next day, when I went to the hospital with the intention of recommencing another course of ergot, having selected for this purpose Squibb's fluid extract, she was *non inventa*. Her mother had removed her, because "her darling did not get enough to eat, and had no doctor to take care of her;" and a day afterwards, she "had a clever doctor now, at last; and he had told her right off, that her darling could not be saved."

123. William C., æt. 7 months. *Rhachitis.* Epiphyses of the tibiæ, radii, and ulnæ, greatly swelled; legs curved outward; costal cartilages pointing forward; sternum prominent; ribs angular on both sides of the thorax; liver enlarged. Skin pale, anasartic. Child generally badly developed. No teeth; little hair. Occiput nearly bald; not mollified. Treatment: Generous diet. Ol. morrhuæ.

124. Leonora B., æt. 7 years. *Abscessus Auris externæ.*

125. Anna B., æt. 5 months. *Abscesses Capitis. Eczema Frontis.* Over the mastoid process and in the external ear, and just in front of the ear over the temporal artery, right side, there were deep and large abscesses, which had been maltreated with blisters, leeches, and *hoc genus omne.* Incision and water dressing. The abscess, 125, was on the top of the right parietal bone, near the small fontanel. Incision. The eczematous eruption was treated with a wash of sulphat. zinci, (gr. viij. to aq. ℥j.)

126. Moses F. B., æt. 8 months. *Synovitis.*

127. Th. T., æt. 3 years. *Synovitis.* These two cases were presented on two subsequent days, and a different teatment was resorted to. Both were in the foot-joint. One was treated with tinct. iodin. externally, twice a day, and was not presented long enough to afford a fair opportunity of learning its effects. The other was submitted to compression by means of a bandage, and its size was soon considerably reduced, but was also not presented until a complete cure could be accomplished.

128. James G., æt. 2 years, 3 months. *Prolapsus Recti. Pertussis.* Had gastro-intestinal catarrh last summer, and since then after each defecation the thickened mucous membrane and submucous tissue of the rectum would protrude from six to nine lines in length. Had, moreover, whooping-cough, which commenced last summer, and continued still but little abated up to March. ℞.—Extr. nuc. vomic., gr. x.; cerat. simplic., ʒij. M. f. ungt. D. S.: To be applied to the mucous membrane of the rectum three times a day. And: ℞.—Extr. bellad. alco., gr. viij.; sach. lact., ʒj. M. f. pulv., div. in p. æq. No. xvj. D S.: Two powders a day. After a week, both the prolapsus and whooping-cough were greatly improved, and the treatment continued.

129. Mary F. T., æt. 1 year. *Adenitis Submaxillaris.* Patient was a small, puny child, with thin limbs, white skin, and rhachitic appearance. Her face was considerably swelled, in consequence of an immense tumefaction of both submaxillary regions, particularly the left. On the right side, single glands could still be distinguished, large though the swelling was, but the left side was a solid mass, with but a single spot on which a feeling like elasticity or fluctuation was perceptible. The child suffered from the utmost dyspnœa, snoring loud, and gasping for breath, being unable to open the mouth. The dyspnœa was very similar to that produced by general suppurative pharyngitis, or retro-pharyngeal abscess. The principal and most urgent symptoms were removed by an incision made into the tumor of

the left side. A large amount of pus was removed. From this time forward, the greatest care was taken to obtain two points, viz., to improve the general condition of the patient, and to reduce the size of the tumors on either side. Poultices were applied to the left; a second incision was made a week later; iodine was applied to the right side, (℞.—Iodid. potassii, ʒij.; glycerin., ℥ss.) and ol. morrhuæ ʒj. given three times a day, with six, eight, or ten drops of syr. iodid. ferri. Generous diet as soon as the child was again able to swallow. Low as the child was, and bad as her constitution appeared to have originally been, it took two months before even single glands could be distinguished in the left submaxillary region. But when the child was presented for the last time, and ordered the same treatment, there was no reasonable doubt of her perfect recovery after a little more time had elapsed.

130. Michael T., æt. 3 years, 6 months. *Pannus*, on both eyes. The spots on either eye have covered the centre of each cornea, just in front of the pupil, for a long time. The inflammatory process of conjunctivæ and corneæ, which has given rise to them, has pursued its course for years. Treatment: Daily application of submuriat. hydrargyr. to each eye. A fortnight afterwards the spots were reduced to half their former size. Treatment continued. Patient not again presented.

131. Christian L., æt. 5 years. *Anæmia. Intermittens.* Patient is tall enough for his age, but thin, emaciate, feeble and pale. Conjunctivæ and mucous membranes generally very anæmic. Complains of headache, unilateral and bilateral. The impulse of heart strong, but no abnormal sound; no bellows murmur; nor is there abnormal dullness on percussion. Every night, for a week past, he has been awakened a few hours after he has fallen asleep, by an attack of fever, that would last a few hours. As no cause of any other nature can be found to explain these attacks, they are taken as attacks of intermittent fever. ℞.—Sulphat. quin., gr. xv. Div. in p. æq. ij. D. S.: A powder at bedtime on two subsequent days. No other attack was observed. His general health was gradually improved, and his anæmia removed, by three daily doses of carbonat. ferri, gr. ij., each.

132. Mary V., æt. 7 years. *Insufficientia Valvulæ Mitralis, Hypertrophia Cordis, et Hepatis, Icterus.*

133. Kate M., æt. 9 years. *Insufficientia Valvulæ Mitralis. Anæmia.* According to the history of No. 132, she had acute rheumatism some four years ago. She had not been herself since. Was emaciated; suffered occasionally from dyspnœa and palpitations, and loss

of appetite. Bellows murmur instead of the first sound, nearly covering the second; most audible below and near the left nipple. Impulse of heart powerful; dullness on percussion from above the third rib down to fully the sixth, and even below; external thoracic, and jugular, veins injected. Lower margin of the liver perceptible to the touch; dullness on percussion as far up as above the fifth rib. The color of the skin is greenish; her bowels irregular—sometimes costive, sometimes loose. The icterus, in this case, must be explained by the hyperæmia of the blood-vessels, not of the liver, but of the mucous membrane of the choledoch., etc., ducts, in a similar manner as those frequent cases of so-called gastro-intestinal icterus. Costiveness alternating with diarrhœa is a common symptom in cases of enlargement of the liver in which the circulation of the portal vein and its ramifications is disturbed. Treatment: Ferri, digitalis, ää., gr. vj.–viij., daily, in 3 doses. After a number of weeks, all the symptoms, with the exception of the dullness belonging to the enlargement of the heart, were decidedly less prominent; icterus disappeared; palpitations and dyspnœa decreased; she recovered her appetite, and gained strength. No. 131 was of a similar character, but without the prominent symptoms as in the preceding case. Particularly, there was no icterus, although great anæmia.

134. Catharine O'C., æt. 4 months. *Spina Bifida.* Patient was well developed; a little smaller than children of her age. No deformity whatsoever, particularly no talipes. Only the sensibility and mobility of the lower extremities somewhat less than normal. On the lumbar region was a tumor of about two inches and a half in diameter in each direction, which was elastic and compressible, and evidently contained liquid. By pressing on the tumor, a fissure through at least two of the vertebræ was perceived, while at the same time the child grew restless and commenced crying. The whole of the tumor, which was about two inches in height, was not covered with cutis, but its most prominent point, which was semi-transparent, had epidermis, and but a thin layer of cutis covering it. Here, evidently, the membranes of the spine were almost the only constituents of the sac in which the liquid (cerebro-spinal liquid) was contained. It was thought proper to resort to as mild an operative proceeding as possible, and therefore a thin silver wire was laid through it. During the operation a small quantity of cerebro-spinal liquid oozed out, the child meanwhile scarcely noticing what was going on. The oozing out of liquid continued slowly, and at no time was there enough leaving the sac so as to evacuate it entirely. There always probably remained from

four to six drachms of liquid in the sac. Nevertheless, the child was taken with convulsions the same evening, which continued until she was seen the following day. She then was pale; perspiration on her head; pupils a little dilated; not very active under the influence of light; large fontanel sunk, and not so large in circumference; sutures narrow, so as to give the impression that the bones had approximated each other; slight twitchings around her mouth; contraction of the flexor muscles of her hands and feet. Bowels costive, and urine scanty; pulse 120; respiration irregular and slow; sacral tumor not laterally collapsed, but the fissure perceptible. Handling the tumor did not aggravate the symptoms. It was impossible to gain any more particular knowledge of the exact nature of the contents of the sac, and especially of the ramification of nerves or medullar substance in its walls. This condition of things remained for a number of days, with the exception of the occasional occurrence of developed convulsive attacks, which again would be replaced by apparent quiet, at which time the child would sometimes take notice of what passed around her, and take a little food. The child died on the seventh day after puncture had been performed, the head growing as it were smaller and more solid from day to day; the pulse increasing in frequency during the last two days, and getting irregular at last, and respiration growing more irregular and slower than before. A post-mortem examination was not permitted.

135. Gerard S., æt. 6 years. *Luxatio Femoris.* The boy was presented but once in my absence. He had fallen sixteen months ago, and had been walking lame ever since. On the records I find a notice, that Prof. Bradley, who conducted that clinic and referred the case to my subsequent examination, suspected it to be one of luxation of the caput femoris into the sciatic notch.

136. James R., æt. 9 years. *Hæmorrhagia in Musculo Sterno-cleido-mastoideo.* Patient was looking around and upward after his kite, when he lost the power of turning to the other, left side. Slight swelling in the middle part of the right sterno-cleido-mastoid muscle, with very little pain on pressure. Treatment: Iodid. potassii, ʒij.; glycerin., ℥ss.; liniment volat., ℥ss. M. D. S.: for external use.

137. Francis I., æt. 9 years. *Contractura ex Abscessu.* Patient had a large abscess three months ago, above the left scapula, and to the left of the vertebral column. It took several weeks to form and to break. Since that, he has been unable to move freely to either side, or to easily bend his head. There is a slight drawing in of the skin over the affected part, the layer of cellular tissue having disappear-

ed entirely, or being very thin. Skin not movable over the subjacent tissue. Induration of the whole region. There is evidently still exudation in and around the muscles. Treatment: Both passive and active exercise, and ℞.—Iodid. potassii, ʒij.; glycerin., ℥ss.; linim. volatil., ℥j. M. D. S.. for external use.

138. Mary I. Th., æt. 10 months. *Myositis.* Middle third of the right thigh very much swollen and painful, the limb a little inflected. Skin very little affected, and movable over the larger part of the swelling. A small opening permits the sound to enter for about an inch, and a little pus to escape. Suppuration appears to be local only, and external absorbents tried. ℞.—Iodid. potassii, ʒij.; glycerin., ℥ss. A fortnight after, the size and sensitiveness of the tumor the same; incision not permitted. Patient sent off.

139. Daniel F., æt. 4 years, 6 months. *Panaritium Subcutaneum.* The fourth toe considerably swelled and sensitive, both spontaneously and on pressure. Skin normal. Treatment, (by Prof. Bradley:) Tinct. iodin., externally.

140. William S., æt. 1 year, 4 months. *Panaritium.* The last phalanx of the right thumb much inflamed and swelled. All the tissues participate in the process. Treatment: Incision, to be followed by a solution of sugar of lead with opium.

141. William S., æt. 1 year. *Erythema Regionis Inguinalis et Scroti.* Inguinal region and scrotum erythematous, from urine, fæces, and coarse diapers. Treatment: Cold water.

142. James W., æt. 2 years, 6 months. *Talipes Varus Paralyticus.* Patient had a severe attack of convulsions when nine months old, which resulted in paralysis of both lower extremities. His right leg was soon restored again to normal action, while his left leg was partially paralyzed for a considerable time longer. The same occurrence then took place which we frequently meet with in cases of incomplete paralysis, viz., the flexor muscles overcame by their action the power of the extensors. Thus, the muscles depending on the anterior tibial nerve are still paralyzed, while the power of the posterior tibial is proportionally not much injured. Thus the club-foot in this case, with its slow development, and based on a previous disease of the nervous centre, is the result of paralysis. Treatment recommended: Faradization of the extensor muscles for some time, and tenotomy.

143. Albert B., æt. 7 years. *Talipes Equinus. Talipes Varus.* The former is on the right extremity, and has been the result of the boy walking on his toes for a long time, in consequence of his heel being sore. It is a mild case, as produced by bad habit only. The

other deformity is quite a counterpart to 142. Patient suffered from convulsions when six months old, was late in walking, and has always dragged his left foot. Moreover, the whole left inferior extremity is less developed than the right. The deformity, accordingly, has been observed to come on gradually, depending, as it is, on a disproportion between the nerve-power of the extensor and flexor muscles. Treatment recommended like that in the preceding case, with the addition of ℞.—Nitrat. strych., gr. j.; spirit. vini, ℥ss. D. S.: Ten drops, twice a day.

144. Walter H., æt. 8 months. *Catarrhus Meatus Auditorii Externi.*

145. Rosanna M., æt. 8 years. *Catarrhus Meatus Auditorii Externi.*

146. Mary M., æt. 9 years. *Otitis Interna. Deafness.*

No. 144 is a simple case of otorrhœa, as commonly seen in early infantile life. Patient has no teeth as yet, but his gums are swelled, the mucous membrane of his mouth and pharynx injected; his scalp shows the first beginning of eczematous eruptions, and the glands of the neck are swelled. Prognosis favorable. Treatment: Four daily injections (simple water injections preceding) of a solution of sulphat. zinci, gr. vj., in aq. ℥j. No. 145 had scarlatina four years ago, and has been suffering from otorrhœa since. Unexpectedly, the affection is localized in the external ear only. Tympanum is healthy, throat not affected, and no symptom of the internal ear having ever been affected. Hearing not impaired. The long duration of the complaint cannot be explained, except by its having been utterly neglected, the discharge acting over and over again as a new irritation. Treatment: Sulphat. zinci, gr. xxiv.; aq., ℥iv. M. D. S.: For external use. No. 146 is a case also depending on scarlatina, from which patient suffered three years ago. Hearing is very defective in the left ear; tympanum is gone, and the discharge, sometimes bloody, is seen to come from the internal ear. Prognosis highly unfavorable as to the recovery of hearing. Treatment: Mild solutions of tannic acid; to begin with, gr. iij. to water ℥j.

147. Isabella G., æt. 1 year, 2 months. *Stomatitis. Pharyngitis.* Mouth and pharynx injected; mucous membrane swelled; uvula and tonsils tumefied. From this cause the child has pain in swallowing, and a short cough, especially when in supine position. Fever moderate. Treatment: ℞.—Chlorat. sodæ, ʒiij.; aq., ℥v. M. D. S.: A tea-spoonful every two hours. This will be a good solution, the chlo-

rate of soda being, at a medium temperature, soluble in three or four parts of water, while the salt of potassa requires sixteen.

148. Catharine W., æt. 1 year. *Catarrhus Intestinalis*, from an unknown cause. ℞.—Subnitrat. bismuth, gr. vj.; cret. præpar., ʒss. M. f. pulv., div. in p. æq., No. xii. D. S.: A powder every two hours.

149. S., male infant, æt. 39 hours. *Defective Development of the Intestines.* The history of the case was given by the attendants in the following manner: The child had no evacuation of the bowels for the first twelve hours after birth. A medical man was called in, who removed some obstruction by means of his fingers from the anus, and gave an injection, whereon a string-like, hard, solid, whitish mass was removed through the anus. The child then was declared to be all right, and left. Nevertheless, no regular passage was had, but the patient evacuated a mass like that described, but less in quantity, several times. He commenced vomiting, however, bringing up a black substance, which was afterwards changed into a brownish or even yellowish-gray mass by the addition of milk, which the child would readily take from the breast. When the infant was presented he still looked well-developed; no deformity perceptible on any part of the body. Exhaustion began to show itself, from the somewhat collapsed face and the sunken fontanel. Abdomen not much inflated; only across it, below the liver, and a little downward to the left, an intestine was both seen and felt. It was inflated with gas, which appeared to be unable to escape. The rectum was very narrow, but could be explored to the length of the first finger, and no perfect impermeability found. The fæces removed last were pretty greenish, solid, about a fifth of an inch in diameter, and completely formed. Having no other means of diagnosis ready, the case was declared to be one of stricture of the intestine, somewhere between the colon transversum and rectum. The last evacuation, however, was submitted to a microscopical examination, and found to contain a uniform mass of cells, of middle size, with nuclei and some nucleoli. No fat, nor hair, nor cholesterine, nor large epithelial scales; thus the evacuation was set down as intestinal mucus only. On the next day the substance thrown up from the stomach was submitted to a microscopical examination, and found to contain, besides milk, some crystals of cholesterine and a large number of large epithelial scales. The case was then put down as one of complete impermeability of the intestine, as there were constituents of meconium above, but not below, a certain point.

The elements of meconium were not sufficiently known before the

year 1858, when Prof. Förster, of Gottingen, submitted it to a very careful examination. The principal results of his investigations are these: that it does not consist, as it was formerly believed to do, of bile, and of the mucous and epithelial cells of the intestines, but mainly of vernix caseosa and the pigmentous matter of the bile. In their largest part, both vernix caseosa and meconium contain obdurated pavement epithelium; but the former has no coloring matter, and the latter less fat. Besides the constituents mentioned already, there is in the meconium hair from the surface of the body just like that found, sometimes even without a microscope, in the vernix. Stomach and intestines have no pavement, but cylindrical epithelium only; nor are hard and large scales, like those of meconium, found on the mucous membranes of the mouth and œsophagus. The fat contained in the meconium takes its origin from the general surface; cholesterine, which is found in meconium, has probably been a part of the bile. Thus we may safely conclude that the principal part of meconium is vernix caseosa, which has been swallowed. Its water is rapidly absorbed, and partially excreted by the kidneys. Perhaps some part of the fat, also, is absorbed, by the follicular glands of the small intestines. Thus, there is a singular transformation of matter in fœtal life, the fœtus swallowing the excretion of his surface, and again assimilating perhaps part of what had been removed. As yet, the contents of the fœtal intestines have not been submitted to a sufficient number of examinations to admit of a comparative estimation of the constituents as to the relative age of the fœtus. Acephali have no meconium; formerly, this fact was attributed to the absence of bile, in consequence of absence of liver; but this malformation would account for the absence of coloring matter and cholesterine only.

Patient died with the symptoms of exhaustion, when seventy-two hours old. Post-mortem examination was made nine hours after death, but abdominal cavity only opened. Rectum very narrow, as described above. Above, the colon appeared only about a fifth of an inch in diameter, but could be inflated up to the vermiform process; no air would pass the valve. A tube was then introduced through a small opening above the ileo-cœcal valve, and inflation attempted from above downward; but no air would pass the valve, thus showing a perfect impermeability. The whole colon and rectum have a length of about fifteen inches. Stomach is normal; perhaps a little larger than usual. Duodenum and upper part of the intestine, to a length of about fourteen inches, are very much dilated, and terminate in a very large *cul-de-sac;* no opening being found into

the remaining part of the intestine, which all of a sudden became of a decidedly diminutive size, of perhaps a fifth of an inch in diameter. This is the size of the intestine all through its length down to the valve, with the following exceptions. As stated, there is no connection whatever between the dilated upper portion of the intestinal canal and the suddenly contracted part, both of them ending in a *cul-de-sac*. Below this, about two inches from this first impermeability, the coarctated intestine again ends in a *cul-de-sac*, after which, to a distance of eight lines, no intestinal cylinder whatever is found, the mesentery hanging free in the abdominal cavity. Then, again, a small intestinal cylinder, of nine or ten lines in length, is found closed on either end. Again, the mesentery without its intestinal appendix for about eight or nine lines. Again, an intestinal cylinder of the same length. Again, absence of intestine for a similar distance. A third intestinal cylinder of the same length, closed on either end, follows this; and again, at last, free mesentery for about half an inch. Then, finally, the intestine fairly begins again, uninterrupted in its lumen, and unchanged as to its diameter of about a fifth of an inch, and measures, down to the ileo-cœcal valve, twenty-two inches. Thus, the whole length of the intestine, including, altogether, two inches of mesentery not accompanied with intestine, is about four feet and a half, exhibiting in its course, besides the dilatation of the upper portion, a nearly equal coarctation of the lumen, the colon being a little larger than the rest, and the rectum not so narrow as the colon itself, two perfect impermeabilities; and beyond these four total interruptions of the course of the intestinal canal, the free intervals being, in the average, eight or nine lines in length.

Liver, spleen, kidneys, and bladder perfectly normal. Both of the kidneys contain beautiful specimens of the so-called uric infarcts.

Cases like the above are more than merely rare. Perhaps there is only one, if any, on record, in which there was, as it were, such a systematical anomaly; the only case that may be compared with that given above being described by Küttner, of Dresden. In his case, the jejunum ended in a *cul-de-sac;* then there was a piece of intestine, of three inches in length, ending in a *cul-de-sac* on either side; further, a second of the same description; finally, a third one, five inches long. Then, at last, the colon, commencing with a *cul-de-sac* above, and ending in a normal anus. Cases of simple interruption of the lumen, complete atresia, on a single locality, are even quite rare, (except in the rectum;) the anomalies found by Küttner, and in the above reported case, stand alone as extraordinary instances of imperfect development.

YMAGHL LIBRARY

150. Adolphus F., æt. 11 years. *Inflectio Radii.* Patient suffered from a fall two weeks ago. The fracture of the left radius was contracted in about the middle of its shaft. Very little care was given to it, and the bone healed in an obtuse angle of about 150°. Union had taken place when presented, the callus being large and massive. Treatment: Radius fractured, under chloroform, and splint.

151. James McJ., æt. 13 years. *Typhus Abdominalis.* Patient is reported to have been sick for ten or twelve days; premonitory symptoms, such as loss of appetite, feverishness, headache and sleeplessness, preceding. He looks exhausted, emaciated, and stupid; eyes sunk; vertical wrinkles on his forehead; lips dry, parched, and covered with a layer of a thick black mass; tongue and gums covered in a similar manner; respiration hurried, 44; mucous râles all over the chest; no dull percussion sound; impulse of heart and arteries feeble; pulse accelerated, 140; liver normal, spleen enlarged; copious and frequent passages of yellowish-green, sometimes bloody masses; pain in the ileo-cœcal region. Fever is always increased in the night. Delirium will set in early in the afternoon and continue to the following morning, with but few and short interruptions. In these lucid intervals the mental faculties of the patient are very low; his comprehension clouded, and his answers very slow, and often erroneous. The case presented, therefore, is one of a severe form of typhoid fever, such as is usually met with in advanced, but seldom in infantile or juvenile age. Typhoid fever is generally a mild disease in early age; neither the symptoms nor the pathological alterations found at post-mortem examinations, nor the mortality, being at all similar to those observed in advanced age. Real typhoid ulcerations are seldom met with; the patches of Peyer will often be found infiltrated; but generally single follicles only will be affected, and their infiltration will be absorbed, or the follicle, bursting into the cavity of the intestine, will return to its normal condition without any cicatrization taking place. Ulcerations and pseudo-membranes on the mucous membranes of the pharynx, œsophagus, and larynx are rare exceptions, although others are on record similar to that of Dr. Mall, in which on and after the eighth day of the disease, in a little girl of six years, pseudo-membranes showed themselves on the mucous membrane of the nose, and went down into the larynx, mouth, œsophagus, stomach, intestines, and vagina. I have myself been present at the examination of the body of a girl of four years, in which the whole length of the œsophagus was covered with pseudo-membranes to such an extent as to nearly fill up its lumen.

Of the symptoms of typhoid fever in early age the most important are the enlargement of the spleen, diarrhœa, and meteorismus, but they are not always found. Fever, accelerated respiration, and bronchial catarrh are often found, but are not pathognomonic. Intestinal hæmorrhages and chills are rare occurrences; deliriousness, somnolence, and nervous symptoms generally are not frequent. Eruptions on the skin, so frequent in adults, are rarer in this age. Severe complications, as parotitis and phlebitis, are uncommon; but during convalescence complications are found oftener than in adults, with other exanthematous diseases, as variola, varioloid, morbilli, and scarlatina. The usual termination of infantile typhoid fever is greatly more favorable than in adults, although its duration is not confined to certain limits; sometimes a few weeks, sometimes several months being necessary for its full course. The prognosis, therefore, is usually a favorable one, inasmuch as the symptoms are not very severe and exhausting, and the local anatomical alterations are not of such a character as to imply severe and obstinate consecutive diseases; but it will greatly depend on the nature of the epidemic, the circumstances of the patient, the age (patients from the first to the fourth year of life being more liable to die) and the sex, (males being more severely affected.)

It is a curious fact that sometimes there will be found epidemics of typhoid fever, in which adults and children will suffer in equal proportions; others in which adults, others again in which children will be affected almost exclusively. Of the cases collected by Prof. Lebert, ten per cent. occurred in individuals under fifteen years of age. In but very few of these severe pathological alterations were found; in a number none at all; even at the age of fifteen the local intestinal changes had not taken place. Nevertheless, all these cases were undoubted cases of typhoid fever. The case before us is evidently one of a severe nature, the symptoms being those of unmistakable typhoid fever, as found in adults. As the patient is already now, in the first period of the disease, nearly exhausted, his fever very high, and his nervous power very low, the prognosis is pretty unfavorable. There is scarcely any hope without his being sent to a hospital, where his strength can be better kept up and his system generally be better supported than under his present circumstances.

152. Francis G., æt. 2 years, 6 months. *Catarrhus Gastro-Intestinalis. Febris Remittens.* Patient has been well until, some six weeks ago, he fell sick with a number of symptoms, attributed to the influence of "cold." He coughed, was feverish, his respiration was

shortened, hurried, and his chest appeared to be sensitive to the touch. There cannot be a doubt but that the case was one of inflammatory disease of the lungs. Patient appeared to rally a short while afterwards, but never recovered his former strength and general condition. He remained pale, restless, and feverish; his skin became dry and pale, a scanty desquamation of small scales taking place from time to time. His bowels became irregular, having three or four passages of greenish, or mucous, or serous masses, very seldom tinged with blood. His appetite was bad; no particular food relished in preference to any other kind; thirst increased, especially in the afternoon and during the night. Pulse is accelerated; at 4 P. M., 136; respiration superficial, but its number is proportioned to the pulse—40. Child very much emaciated; cheeks and eyes sunk; veins of temporal region swelled; face a little flushed. Extremities very thin, the skin hanging loose and flabby over the bones. Abdomen inflated, a little sensitive to the touch. Percussion yields a tympanitic sound all over its surface. Examination of the thoracic organs shows no anomalies whatsoever; respiration is very superficial, from the general muscular weakness of the child. Respiratory murmur vesicular, with the puerile modification of this age; percussion sound sonorous. The fever is said never to leave the patient entirely. It is highest in the evening and night, less in the morning, and will begin to rise again early in the afternoon. Thus, it bears the characteristics of what is called remittent fever, and this is the diagnosis with which patient, who has been under medical treatment for some time, was presented for advice.

We are in the habit of applying the term of remittent fever to a feverish disease in which the principal symptom, the fever, shows some peculiar characteristics. As in this case, it will never be absent; but while the lowest rate of pulsations will be from 80–100 in the morning, it will rise to 120–140–160 in the afternoon, evening, and night. At the same time the temperature of the skin is increased, cheeks flushed, and thirst intense. It has been stated as a characteristic of remittent fever, that it is very obstinate, and will resist the action of medicinal agents for some length of time; others have regarded it as kindred to intermittent and typhoid fever, its nature being considered to be eminently malarious. Others, again, have sought for the seat of remittent fever in disorders of the intestinal canal, catarrhs of the upper or lower portion; and a number of authors describe the abdominal symptoms in preference to any other. Rilliet and Barthez have even discarded the name of remittent fever, preferring that of gastro-intestinal fever; they evidently being of the opinion that the

local symptoms pointing to a disease of the mucous membrane of the intestinal canal, and especially its follicular apparatus, are of prevailing importance. Moreover, a number of cases of inflammatory diseases of the thoracic organs, general, and peritoneal, and meningeal tuberculosis, have been described as remittent fever; and certainly the more obscure a disease is, the more inclined we shall be to consider one of the prominent symptoms as the real disease. The principal symptoms of what is mostly described as remittent fever, such as high temperature, vomiting, loss of appetite, thirst, furred tongue, in fact, the whole number of "gastric" symptoms, will be found more or less in every feverish disease, and most in such the nature of which is so severe, and the danger so imminent, that it is of the utmost importance to arrive at a correct diagnosis at once. A very minute examination of the thoracic viscera, and careful attention to meningeal and cerebral symptoms, will generally correct the diagnosis; but a number of pulmonary inflammations and brain diseases have certainly been mistaken for remittent fever. Tubercular meningitis, particularly, is often mistaken for some gastric or intestinal disorder, vomiting being one of the first and most constant symptoms; even the well-known picking of the lips and nose is found in tubercular meningitis, though it is believed by the public to be pathognomonic of "worm disease," and found present by physicians in all and any diseases of the gastro-intestinal canal.

Diarrhœa is not at all a constant symptom of remittent fever, costiveness taking its place sometimes in the descriptions given by authors. There are even a large number of cases in which there are said to be no prominent gastric or intestinal symptoms, but which are attributed to malarious influences, as above stated, and would be called intermittent fevers, but for the absence of intermission in the fever. There are others, again, which are described with the symptoms of typhoid fever, but distinctly stated not to be typhoid, but remittent. We know, however, that the range of the symptoms attending typhoid fever, particularly in early age, is very large, and their severity very different, and that there is no reason to change the name of a disease just because there is not such an assemblage of fearful symptoms as we sometimes find. We further know, that there is scarcely any disease, which, notwithstanding all its regularity, will, in infantile age, exhibit so many differences as intermittent fever, either as to the time and duration of the attack, or the prominent symptoms. Pulmonary and cerebral symptoms are not unusual in intermittent fever in children; the stages of the attack differ greatly, and their time and dura-

tion are not certain. Thus, if we feel inclined to believe in the existence of remittent fever, as kindred in nature or appearance to typhoid and intermittent, we really do not know where the one commences and the other ends. Some unmistakable characteristics ought to be found in every complex of symptoms which is to deserve the name of a disease in the indices of our text-books. Have we a right to give the same name to a symptom, prominent though it be, which may be equally found in intermittent fever, typhoid fever, acute gastric catarrh, intestinal catarrh, first stage of pneumonia, tubercular meningitis, rheumatic fever, and, in fact, all such diseases as are apt to last for some time, and be connected with a protracted and high fever? It appears to be more rational, and more in conformity with the anatomical tendencies of our age, to regard the remittent, as any other character of a fever, as depending on the nature of the anatomical lesion. This century has long endeavored to get rid of those entities called diseases, the seat of which nobody knew, nor cared for; unless we have a positive anatomical lesion by which a fever like that in our case can be explained, we have no right to take it as the essence, the principal nature of a disease; and even if we consider remittent fever as a malarious disease, belonging to the class of intermittent and typhoid fevers, we shall scarcely be justified in resorting to the assumption of a new name, for symptoms which are not new, nor different in their nature, but are slightly at variance with what we generally see. We ought not to forget that nature is not so uniform as our knowledge, ideas, and prejudices.

I therefore believe that, in some future time, the term of remittent fever, at the head of special chapters, will no longer be found. As to our case, we have no reason to assume any other cause of the fever, emaciation, and exhaustion of our patient, than the protracted and general catarrh of the intestinal mucous membranes; preceded, moreover, by an inflammatory pulmonary disease, which itself had its share in the anæmic and weakened condition of our patient. To give antifebriles in such a case, without attending to the local lesion of the gastro-intestinal canal, would prove unsatisfactory. The stomach would scarcely tolerate, at all events would not digest, remedies given in sufficient dose to check the fever, if it could be thought possible to remove the fever without getting rid of its cause. The indications are clearly these: 1, To suppress the catarrh of the mucous membrane of the intestine; 2, To improve the digestive power of the stomach, which is also in a catarrhal condition; 3, To improve the general condition of the child by digestible food. Treatment: According to the child's

appetite and its expected improvement, beef-steak, raw beef, beef-tea, milk, nitrogenous food generally. ℞.—Subnitrat. bismuth., ʒj.; sulph. quiniæ, gr. xviij.; acetat. plumb., ℈j. M. f. pulv. Div. in p. æq. No. xxiv. D. S.: Four powders daily; and Pulv. Doveri, gr. iss., every night. The child improved considerably in the course of a week, diarrhœa disappearing, appetite returning, and sleep becoming sounder and less disturbed. Exactly the same treatment was followed up for two or three weeks, with perfect success.

153. Sarah Jane H., æt. 3 years. *Palatum Fissum Congenitum.* Patient is presented for the entire absence of articulation, the cause of which anomaly is readily found on the first inspection of the mouth. The soft palate is cleft in its median line from the posterior margin of the hard palate down to the uvula, which is divided into two equal halves. The child being well developed otherwise, no other cause of the anomaly complained of need be sought for. Artificial junction of the two halves of the soft palate is evidently indicated. But the operation of staphyloraphy is such a difficult and tedious one even in the adult, requiring an unusual amount of self-control in the patient, that it cannot be thought of before the patient has attained a certain age. We are not, however, deprived of all means of curing this defective development, since the French medical literature has presented us with a pamphlet of Dr. Cloquet's, in which this eminent surgeon publishes his experience of curing congenital cleft palate by means of the solid caustic. He publishes a few cases in which he succeeded, by frequent cauterizations of the ununited margins in their whole length, in bringing about granulations, and finally cohesion and a perfect cure. The same plan has been followed by me in the case of a vesico-vaginal fistula, operated upon in the usual way with but partial success. A fistula of about a quarter of an inch remained unclosed after the removal of the silver wires; it has been cauterized five times since, in intervals of from four to five weeks only, with a very good success, taking into account that the vesico-vaginal wall is a very thin one in this case; with such a success, indeed, that now already the lady is enabled to hold her urine for hours. We, therefore, may expect this case to be a fit one on which to try the method alluded to; the intervals between the single cauterizations having to be shorter than in the case of vesico-vaginal fistula, in which a new cauterization was not resorted to before it was certain that no further improvement would take place after the preceding one. (Up to the day of writing this report, during a period of three weeks, cauterization with the solid caustic has been performed three times.)

154. William S., æt. 2 months. *Stomatitis. Parotitis Secundaria.* A slight swelling has been noticed in front and below the left ear, for two weeks; it has gradually increased, until the lobe of the ear appeared turned outward and elevated, and the face was greatly disfigured. Fever pretty high; patient salivating much; mucous membrane of mouth and pharynx injected and swelled, and covered with a large number of superficial ulcerations; odor, fœtid. Treatment: ℞.—Iodid. sodii, ʒss.; chlorat. sodæ, ʒiij.; aq., ℥jss. M. D. S.: Half a tea-spoonful three times a day. Further: Tinct. iodin., externally, twice a day.

155. Walter H., æt. 8 months. *Catarrhus Meatus Auditorii Externi.* No perceptible cause, except uncleanliness, and the child at the same time being in the full progress of general development. Treatment: Injections of water, and of ℞.—Sulphat. zinci, ℈j.; aq. ℥iv., four times a day.

156. Mary M., æt. 9 years. *Otitis Sinistra Interna. Surditas.* Muco-purulent discharge from the left ear. Tympanum gone, and discharge seen to fill the external ear. Patient suffers from this discharge and consecutive deafness since a severe attack of malignant scarlet fever, three years ago. Prognosis as to recovery unfavorable. Treatment to consist of mild astringents, locally. Acid. tannic., gr. iv. to aq. ℥j.

157. Adelaide P., æt. 2 years, 2 months. *Conjunctivitis Scrophulosa. Blepharospasmus.* Examination could not be made, except under the influence of chloroform. Conjunctiva much injected and swelled; submucous tissue thickened; margins of eyelids tumefied; phlyctæous ulcerations, most of them collapsed and healing, on the conjunctiva scleroticæ; photophobia intense; cornea not affected, although the process has gone through a course of six months. Treatment: Cauterization of conjunctiva with solid nitrat. argenti, and neutralization by means of chloride of sodium; and embrocations to eyebrows, temporal and frontal region, four or five times a day, of a particle of the following ointment: ℞.—Ungt. hydrarg. ciner. fort., ʒij.; extr. belladonna, ʒss. M. f. ungt.

158. John K., æt. 2 years. *Conjunctivitis Trachomatosa.* Both eyes affected. Treatment: Cauterization with the solid caustic and neutralization.

159. John McM., æt. 2 years, 9 months. *Abscessus Galeæ Aponeuroticæ.* Four large abscesses on the head of a healthy boy, after a similar one in the submaxillary region had broken and healed up. Incision.

160. James C., æt. 6 years. *Catarrhus Laryngis.* Patient has had scarlet fever four months ago, there being still the signs of diph-

theritic ulcerations on his tonsils. Mucous membrane of the pharynx thickened, and still livid. Auscultation and percussion give normal results. Patient feels well; is hoarse, but coughs from time to time, especially after awakening early in the morning. The objects of treatment are reduction of mucous membrane and submucous tissue to their normal condition, and suppression of the superabundant secretion of mucus. Treatment: ℞.—Extr. cubeb. æth., ʒjss.; syrup. simplic., ℥j. M. D. S.: Half a tea-spoonful three times a day, and the external use, over the larynx, twice a day, of tinct. iodin.

161. Ellen McC., æt. 7 years. *Dentes Anomali. Caries. Herpes Circinnatus*, (on left shoulder.) The right central upper incisor was protruding from the gums in its whole length, the root being unabsorbed, but the whole tooth, as far as it is uncovered, carious. Behind it the permanent tooth has cut long ago. It is extracted, as is also the left central incisor, which is carious, although no permanent tooth is visible. In this one the root is already absorbed, proving that the corresponding permanent incisor was in its right place directly above and exercising the normal, slowly absorbing pressure, whereas in the former case the permanent tooth had been pressing the deciduous incisor from behind forward. Ring-worm treated externally with ℞.—Sulphat. zinc., ʒj.; axung. porci., ʒvj. M. f. ungt.

162. James McC., æt. 10 years. *Cerumen Induratum.* Patient complains of hard hearing and a strange noise in his right ear. Indurated wax is found to fill up a portion of the external ear. Injections of water.

163. Daniel P., æt. 1 year and 9 months. *Pneumonia Chronica. Catarrhus Intestinalis.* The history of the case is very inaccurate. Patient, of healthy parents, is reported to have always been well with the exception of the last five months, during the larger part of which he has been suffering from mucous, or serous, light-colored or greenish diarrhœa, and from coughing. Of a feverish disease nothing is known. The physical symptoms, as far as the lungs are concerned, (heart being normal,) are the following: Mucous and sibilant râles to some extent over the whole chest; respiratory murmur diminished nowhere; over the left upper lobe sometimes very much like the bronchial. No prolongation of expiration. Dull sound on percussion over the upper lobe of the left lung, both anteriorly and posteriorly. Treatment: ℞.—Sulphat. quin., acid. tannic, ää., ℈j.; pulv. opii, gr. j.; and M. f. pulv. Div. in p. æq. No. xxiv. D. S.: Four powders daily. Diet generous.

164. Ann W., æt. 1 year and 7 months. *Pneumonia*, left upper

lobe. *Bronchitis.* Measles a month previously. Sulph. quin., gr. ijss., twice a day. Pulv. Doveri, gr. j., every night.

165. Edward D., æt. 4 years. *Bronchitis.* Oxysulphuret. antim., gr. j., every 3 hours.

166. Mary T., æt. 2 years. *Pneumonia Bilateralis.* Little coughing; very high fever; slight convulsions last night. Vomiting has occurred several times. Pain in left side of thorax; subcrepitant râles over left lung. No dull percussion sound; constipation. Tinct. digitalis, gtt. xij., every two hours. After three days the fever disappeared; no vomiting; not much coughing. Bronchial respiration nowhere, but dull percussion sound over left lung, upper lobe, anteriorly, and right lung, middle lobe, both anteriorly and posteriorly. ℞.—Sulphat. quin., gr. viij.; oxysulphuret. antimon., gr. xvj.; sacch. alb., ʒss. M. f. pulv. Div. in p. æq. No. xvj. D. S: a powder every three hours.

167. Richard C., æt. 4 years. *Hyperæmia Spinalis.* Patient is reported to have always been well until a short time ago. Six weeks ago he complained of a severe pain in his back, corresponding with the upper lumbar and lower dorsal vertebræ, which could not be traced to any external injury. At the same time the powers of his lower extremities grew less, his knees would relax, and his feet would be thrown outward. The pain increased for a week, until the lower extremities were perfectly paralyzed. The sphincter muscles of both urinary bladder and rectum were not affected. The pain gradually decreased, but not so the paralysis, which remained stationary until a few days ago, after the application of a vesicatory to the affected part. The motory power, however, is still very little, no voluntary motions to any considerable extent being possible. Apparently the sensory nerves have, although affected, never been suffering in the same degree as the motory ones. Treatment according to the principles laid down previously, (Case 122.) ℞.—Extr. secal. cornut. fluid., Squibb, ℥ss. D. S.: Ten drops three times a day.

168. Mary M., æt. 5 months. *Marasmus.* Patient was a healthy infant when born, since which time, however, she gradually lost flesh and strength. She has been fed on goat's milk, arrow-root, and farina, the mother having suffered from severe metritis after confinement. Patient has a senile appearance; is very thin and emaciated; eyes, cheeks, and fontanels sunk; forehead covered with horizontal wrinkles; intercostal spaces and trigonum colli sunk; abdomen large; extremities very thin. The weight of the child hardly more than at birth; mucous membrane of the mouth of normal color; respiration a little irregular: 35–40. Expiration not prolonged, but mucous râles all

over the chest, changing their place from time to time, according to the child's efforts in crying. Between the scapulæ, on either side of the vertebral column, the respiratory murmur more of a bronchial character, percussion exhibiting at the same time a somewhat dull sound. No cough, nor hoarseness, but voice feeble in accordance with the general weakness of the patient. She has from three to five passages a day, sometimes greenish, sometimes serous or mucous, generally not preceded nor followed by pain. The case is evidently one of atrophy produced by vicious food; neither the goat's milk, nor arrow-root, nor farina agrèeing with the digestive organs of the infant. It would be well if there was only a deficiency in her food as to quantity, as in those cases of infants who are nursed by their mothers, but supplied with less than their proper amount of food. Such children will be thin, emaciate, and voracious, will cry after leaving the breast, will suck all night, never being satisfied, because always hungry; but no symptoms of pulmonary disease show any deeper lesion, nor is there any diarrhœa indicating trouble of the digestive organs. They are simply cases of healthy children starving for want of food. In the case before us, however, there are plenty of nutritious elements contained in the food, but not in such composition as to be digestible in tender age and by wholly unprepared organs. Moreover, there is in arrow-root and in farina more amylaceous matter than, even if digested, would prove beneficial to the infantile organism. The irritation produced by indigestible ingesta on the mucous membrane of the gastro-intestinal canal will result in diarrhœa, and the loss of albuminous matter will increase the emaciation brought on already by defective assimilation.

It is in this case of the utmost importance to decide whether the general marasmus depends on the insufficiency of food only, or whether the pulmonary symptoms enumerated point to a severe general affection. Mucous râles with a normal percussion sound are found in a simple bronchial catarrh, as well as in tubercular infiltration; the absence of cough being in no manner a proof of the absence of tubercles. For tubercular deposits will sometimes be found exclusively, without coughing having given rise to any suspicion in this direction. Nor is the harsher respiratory murmur between the scapulæ a symptom of tubercular infiltration. Its occurrence on both sides appears in itself to indicate its occasional presence under normal circumstances. The respiratory murmur in early age is, indeed, a good deal harsher (puerile) and there is, for this reason, nothing surprising in the quality of the respiratory murmur. Even bronchophony may be

observed sometimes, in such cases, where the general emaciation and the little distance between the larynx of the patient and the ear of the examining physician change the usefulness and signification of the general symptoms. We furthermore know, that although the tubercular dyscrasia is not unfrequently found in early age, it is not so very frequent in the first year of life, when the majority of cases of atrophy resulting from insufficient and improper food occur. Of thirty-one tubercular children in the Paris Foundling Hospital, Hervieux noticed but ten who were less than a year old. Nor are there other symptoms or indications arousing the suspicion that the intestinal catarrh in our case could be of a tubercular character, or the general emaciation and exhaustion depending on the same diathesis. There are nowhere swellings of glands over the surface of the body, which will always be found in individuals with scrofulous or tubercular predisposition. And finally, there is no case of tubercular phthisis known to have occurred in the same family. An older sister of our patient's, who had been so fortunate as to be nursed by the mother, is perfectly healthy and well-developed.

The treatment in cases like this is as clearly indicated as it is generally unsuccessful, because of its being neglected. Whenever it is possible to allow such children to return to the breast, they will generally recover very soon. Where this is impossible, the food must be as similar to the natural one as possible. Beef-tea, boiled milk diluted with water and mixed with a little salt and sugar, decoction of barley mixed with milk where there is tendency to diarrhœa, or of oatmeal gruel where there is a tendency to constipation, will generally prove better in those early months of life than any amount or number of medicinal agents.

2. ESSAYS.

The following pages are by no means intended to contain a full exposition of the materia medica of the infantile age. They are destined rather to show, condensed and summarily, part of the practice of the Clinic for Diseases of Children in the New York Medical College. Thus they will, I hope, prove a convenient compilation to those gentlemen whom I have had the honor to instruct, and perhaps a welcome subject for examination and criticism to the other members of the profession. They will judge whether the principles adopted by me in the treatment of the diseases of children are correct, and particularly whether we are at all justified in speaking of a materia medica of the infantile age. I am sure that we are. A physiology and pathology of the infantile age have long been treated of as separate subjects, and I am sure that therapeutics have the same right to form special subjects for investigation. It will soon be seen that, for the purpose of attending the diseases of children, it is not sufficient to diminish and sweeten the doses administered to adults.

Of particular importance in the treatment of diseases of children is the regulation of their diet. It is well understood that infants nursed by their mothers will, under equal circumstances, thrive better than such as have been brought up by a wet-nurse, or by hand; that regular habits, cleanliness, and fresh air contribute a great deal to their health and comfort; that the health, temper, and physical affections of the mother or nurse influence those of the infant; that their very pleasures, passions, and habits will leave their traces in the nourishment and nature of the child. It is most important, therefore, to regulate the quality and amount of food to be taken by infants, and the time when it is to be given. Many irregularities or anomalies in the functions of the infantile organism will be removed or healed by attending to these subjects, as it is well known that, for instance, superabundance of fat, or caseine, or want of sugar in the mother's milk,

will bring on diseases of the digestive organs of infants. In such cases, a change in the diet is more important than any pharmaceutic remedy; many cases of constipation, for instance, in nurslings, are produced by the superabundance of caseous matter in the milk; it will appear in the hard fæces as white curdled flakes. The most reliable, and, at the same time, mildest remedy, is the addition of a portion of sugar to the breast-milk. I am in the habit of allowing the nursling a piece of sugar dissolved in a small quantity of water, to be taken immediately before each meal, in such a manner that the mixture of sugar and breast-milk is effected in the stomach.

Diseases of the digestive organs in infants and children are very numerous, and the rate of mortality produced by them is very large; moreover, the digestive organs suffer almost in any disease of any other organ, and the preservation of their function is, therefore, of the utmost importance, both as a prophylactic and healing agent. While the infant at the breast requires, under favorable circumstances, nothing but the breast, the amount of food must be diminished in the majority of acute diseases; the patient must frequently be refused the breast, which he will instinctively turn to to soothe his thirst and feverishness, and allowed water instead. Many attacks of fever are cured, that is, get well, under the influence of cooling beverages alone, without the addition of medicines; water, soda-water, or lemonade, being more powerful than they are. Many cases of indigestion will be cured by the addition of a little salt to every meal, or of a little vegetable slime to cow's milk, where there is a great tendency to gastric acidity and too rapid and hard coagulation of the food. Barley, with its large proportion of phosphates; oatmeal, with its amount of phosphates and mucine; arrow-root, with its superabundance of amylaceous matter, require their own individual indications in practice.

These remarks have been made to remind my readers of the fact that sometimes much can be done by apparently very little. We all know, moreover, that many patients will sooner recover their health if left alone to the powers of nature, than if fed on medicines. If such is the case in adults, it is the more so in infantile age. There is a great tendency in the nature of children to help itself; in no other age do so many diseases take their regular course and disappear without leaving any trace of their existence. In such cases the physician is but the observer of the process; in being satisfied with this modest position, he will prove the true physician who feels himself the minister of nature. Such are the cases in which the so-called expectant method is indicated; which have given rise to the nihilistic repudiation

of all and any remedial agents, and which has formed the principal part of the curative feats of homœopathy. There are other diseases, however, the course of which would probably be a regular one, but which may be shortened by medicinal agents; they require medicines, first for their direct effect, and further, as a prophylactic given for the purpose of avoiding any accidental coincidence with other diseases. Such a disease, for instance, is pneumonia in the infantile lung. It requires, in an otherwise healthy child, five or six days to take its usual course; we know that, but nevertheless are justified and obliged to give proper medicines, to avoid complications, remove the danger of excessive exudation, and relieve certain troublesome symptoms. In other affections, with apparently a very mild course, some dangerous symptoms will sometimes arise suddenly, and require medicines; there are others which can by no means get well without their administration; and others which would either lead finally to destruction, or to recovery, without the administration of medicines, but in which prominent symptoms require their use, to relieve and comfort the patient for a certain period.

The infantile organism is a growing, and, as it were, an incomplete one. The organs are in full development, but not equally and harmoniously; others undergo a retrograde metamorphosis. This inharmoniousness of development explains a number of abnormal functions and diseases, and the rapid growth the necessity of constant action of the organs of digestion and assimilation. As disease constitutes the physiological function and structure of an organ under altered circumstances, and the organs alluded to are constantly at work, the many diseases of the infantile digestive organs, and the frequency of diseases generally, are well explained. Twenty-five per cent. of all children born in France die before they reach the age of a year, and more than sixty per cent. of all the deaths occurring in New York are in children of less than five years of age. Climate, age, and constitution of the parents; hereditary disposition to syphilis, scrofula, tubercles, insanity, epilepsy, etc.; the diseases peculiar to the infantile age; the irritability of the digestive and respiratory organs, and of the cutaneous and nervous systems, swell the number of diseases occurring in early age to a very large number. The general irritability of this age has always been known, and better known than understood; impressions are easily made on the infantile organism, by whatever cause. Thus it happens, firstly, that smaller doses of medicine will have the same effect which is produced by larger ones in adults; but secondly, also, that a rapid and decided effect is required to counteract the rapid devastations of

disease. The individuality of the cases and a correct diagnosis will determine which of the two indications is present.

A number of authors have attempted to determine the doses of medicines for certain ages. They, for instance, uniformly declared that, if the dose given to an adult was 1, that of a child under a year was from one-sixteenth to an eighth; from the first to the fifth year, from one-sixth to one-third; from the sixth to the fourteenth, from one-half to three-quarters; from the fifteenth to the twentieth, from four-fifths to one. There is no such uniformity. Not to speak of the difference as to constitution, development, and strength in individuals of equal ages, we shall soon learn that a number of remedies are tolerated, or efficient, in but a very small; and others, in proportionately a very large dose, in the infantile organism.

I abstain from making any remarks on the mode of administering remedies to children, with the exception of this: that it is not so unimportant in the diseases of new-born children to take in regard the taste of the medicine, for it is not true, as has always been stated, that new-born and very young infants show no action of the organs of taste; but that great care should be bestowed on the selection of the *corrigens*. Many disorders of the digestive organs do not agree with the administration of the syrups so commonly used; they will add to the acidity of the gastric secretions, and disturb digestion generally. In the majority of diseases of the digestive organs, particularly in catarrhal affections of the mucous membrane of the stomach and intestinal tract, it is much better not to add a substance the transformation of which into acid is more than merely probable.

I. *Opium.*

A number of medical authorities object to the administration of narcotic remedies in the diseases of the infantile age. A large experience has shown, indeed, that they have sometimes been used to a great disadvantage, even to the destruction of patients. It has been said that narcotics greatly weaken the powers of the nervous system; that they prove injurious to the circulatory organs and general nutrition, by their diminishing the number of pulsations, and that they prevent the process of secretion on the mucous membranes, in the mouth, in the intestinal tract, and in the kidneys.

Such are, indeed, the effects of the narcotics; and those who favor and advocate their medicinal use have derived from these very facts, established by both physiological experiments and experience at the

bedside, a number of indications for their administration. It is argued, then, that narcotics are invaluable in infantile diseases; they are particularly required in cases of exaltation of the nervous system, as, for instance, in neuralgic affections, (which, however, are very rarely met with in early age;) as well as to relieve pain in incurable diseases, and even pain in inflammatory affections, in which there is no proportion between the pain and the fever and other symptoms of inflammation. Again, increased secretion of the mucous membranes forms an indication for their employment. They are further recommended in all diseases in which the nervous system is prominently suffering, in either its centres or peripheric parts, from spasmodic affections, such as tetanus and convulsions of other nature; and are also much employed in cases of sleeplessness.

The latter indication is among the first to be confined to certain limits in the diseases of the infantile age. Children require sleep, and incline to enjoy it; they will sleep sufficiently, unless the functions of their system are somewhere disturbed. When they are sick and sleepless, the question is a very serious one whether the sensations of sickness ought to be kept down to such an extent as to enforce sleep. If this was the only effect of the narcotic, the indication might be followed up at any rate; but the suppressed secretion of the mucous membranes, and the other consequences of the administration of the narcotic, might add a new pathological symptom to those existing. At all events, the circumstances of the case will have to be weighed in all its relations, before sleep is to be enforced by narcotics. As a general rule, sound sleep will not return, particularly in inflammatory and painful diseases, before the morbid process has commenced to take a favorable course.

The objections raised to the administration of narcotics in general have particularly been made to opium, the most powerful amongst them. It has been stated, and proved, that its action is a very strong, and at the same time a very uncertain one, in infantile diseases, and that its peculiar effect on the brain, producing sleep, somnolence, and sopor, may often give rise to sudden death. This is really so. Death has often ensued after the administration of opium in proportionately small doses, and it is good to bear in mind the memory of such untoward events. Dr. Kelso, for instance, reports a case in which a child, nine months old, was destroyed in nine hours after taking four drops of laudanum. In another case, a child between five and six years old died in thirty-six hours after having taken an amount of paregoric containing from three-quarters of a grain to a

grain and a quarter of opium. In a third case, a child, aged seven months, was destroyed by a dose of paregoric equaling a quarter of a grain of opium. Dr. Taylor quotes the case of a child, four years and a half old, who died of a dose of four grains of Dover's powder, containing no more than two-fifths of a grain of opium; and Dr. Christison mentions an instance in which the administration of three drops of laudanum in a chalk mixture, for diarrhœa, to a stout child fourteen months old, was followed by coma, convulsions, and death in about six hours. Even smaller doses have either proved fatal, or given rise to very serious accidents. Clarke has observed a fatal effect from half a tea-spoonful of the syrup of white poppies; and a patient of Marley's came near death from the same dose. Merriman, Ryan, and Pereira have seen an unexpectedly strong narcotic effect on the administration of a single drop of laudanum; and the case of the death of a newly-born, from the same dose, is on record.

The number of these cases could be considerably increased by extracts from the literature of all countries. They prove that there is some uncertainty in the administration of opium to children, and render it worth while to look into its effects and dangers. Its effects are, as above stated, eminently those of narcotics in general. It relieves pain and removes sleeplessness; acts as an antispasmodic; is a powerful antiphlogistic, from its effects on the action of the heart and blood-vessels; and suppresses the secretion of the mucous membranes and the glands. All these effects are of a secondary nature, they being under the control of the nervous system, which in infantile age stands in a somewhat different position to the whole system from that observed in adults.

We are hardly at liberty to say that in adults any organ or system of organs is the superior of the others. Except in a diseased condition of the system, there is, in advanced age, harmony amongst the parts constituting the body. Not so in children. What is considered an abnormal condition in adults, is frequently but too normal in early age. At all events, some superiority of the nervous system is well perceptible. The brain is, in proportion, the larger the younger the individual, and the almost monstrous proportion of the size of the head to that of the other parts of the body, at the time of birth, is but slowly counteracted in the course of the first years of life. Not only the size is in a different proportion to that of other organs and the body in general, the functions, some of them, at least, are even more so. There is scarcely any affection of the organism in which the nervous system would not readily participate. Convulsions will, in many

young children, prove a very frequent companion of any feverish or inflammatory disease, and follow a number of peripheric irritations, which appear to be in no connection with the nervous centres, but through a single peripheric nerve. I need not dwell on this subject, nor did I intend saying anything but to direct the attention of my readers to the well-known general impressibility of the nervous system in infantile age.

The symptoms produced by a large dose of opium are those of cerebral congestion. The results of post-mortem examinations, in cases of poisoning by opium, are those of congestion. But congestion, or rather hyperæmia, is known to be a very frequent occurrence in children; so much so, that many of them are always afflicted with or suffering from it. This shows, then, how small the boundary is between the physiological and pathological condition; for while it is by no means doubtful that cerebral hyperæmia may give rise to a number of severe symptoms, it is certain that a considerable amount of blood is found in the cerebral and meningeal blood-vessels of young children, in their physiological condition. This fact is explained by the peculiar formation of the infantile head. The brain is not contained in an osseous cavity, but the cranium is composed by a number of bones connected with each other by loose, movable bridges of fibrous tissue. These sutures will not ossify before the commencement of the second year of life. Up to this time there is not acting upon the blood-vessels of the brain and its membranes the lateral pressure of later life, produced by the immovable walls of the cranium. Thus, in any case of sickness in which the circulation is disturbed or obstructed in any distant part of the body, the brain in small children is apt to act as a reservoir of the blood not permitted to enter or pass another organ. It is a peculiar occurrence that the brain has, as regards the distribution of the blood, the very same function in the infantile organism which is assigned the large glands of the abdominal cavity, liver, and spleen in advanced life.

The dose of the medicament sufficient to produce congestion of the brain varies a good deal, according to the state of health, the temperament and constitution of the patient, and idiosyncrasies. Idiosyncrasies certainly there are, perceptible in the action of this remedy, as well as in that of any other. Medicinal agents and articles of food are not equally well tolerated by all individuals, and in a great many cases the individual capacity of tolerating opium has to be found out. That bad effects have been observed, is not doubtful; nor even that they have occurred with good observers and eminent practitioners.

They will, however, be easily explained by such as have, perchance, met with exhausting vomitations after an indefinitely small dose of ipecac, or with copious salivation after a single small dose of calomel. I have, myself, effected a copious salivation in a healthy man by the administration of half a grain of proto-iodide of mercury, in a case where I have not the slightest suspicion of the drug having been decomposed. Thus, there is danger from even small doses of opium, but such only as will occur with any remedy endowed with powerful effects. This, however, is far from counter-indicating its administration, but ought to have the effect of rendering us cautious. We ought to stop the administration of opium as soon as contraction of the pupils takes place, and paleness of the face and somnolence set in. Nor ought we to commence by large doses. The late Schoepf Merei, the director of the Children's Hospital at Pesth, Hungaria, and afterwards Professor of Infantile Pathology in the Manchester, England, School of Medicine, and well known as a medical writer, prescribes opium very rarely to the newly-born; from the second to the third week, his medium dose is the hundred and twentieth of a grain; from three to six weeks, one-hundredth; from six to eight weeks, one-seventieth; from two to four months, one-fortieth of a grain. The action of a proper dose of opium is, according to Schoepf Merei, manifested half an hour after its exhibition, and lasts from three to six hours. He has seen cases of narcotism produced by the administration of opium; even two cases of death; but a moderate degree of narcotic action he has never seen to be dangerous in such cases where the use of opium had been distinctly indicated.

I may as well state here, that the doses of opium given by Prof. Schoepf Merei are just the same I have thought proper to give for a number of years. But the duration of its effect I have not found so long as he appears to have observed. The doses mentioned I repeat about every three hours, and add, that up to this time, I have not met with any untoward accident. Certainly, I have met with cases of moderate narcotism, but I have not yet been so unfortunate as to cause death by the medicine. Lastly, I wish to direct the attention to Schoepf Merei's assertion, that whenever opium has been really indicated, he has not been unfortunate in its administration. I go further, contending, as I have done in a lecture delivered a long time ago in the College of Physicians and Surgeons, (*New York Journal of Medicine*, September, 1859,) that whenever a medicine is really indicated, it is tolerated in large doses. Thus it is, that in peritonitis, for instance, in children, we may at once resort to large doses of

opium, availing ourselves of the discovery of Prof. Clark, as well in children as in adults, and following the example Prof. G. T. Elliot, published some years ago; thus it is that, in a number of cases, opium will sometimes be tolerated in really immense doses. The case related by Percival, and quoted by Dr. John B. Beck, in "Infant Therapeutics," p. 19, is illustrative of this fact. A young man was admitted into the Manchester Hospital on account of a violent spasmodic attack which recurred periodically in the evening, and after trials of various remedies, doses of opium sufficiently large to mitigate the violence of the paroxysms were ordered; he took twenty-two grains every night during a week, without producing any soporific effect. On the eighth night he had no return of the spasms. He nevertheless took the opium, and in the morning was found dead. The effect, then, depends totally on the indication. As a general rule, it ought to be remembered that no medicine ought ever to be given without a strict indication; and, as I have stated, wherever the diagnosis is correct and the indications based on the distinct knowledge of a case, the corresponding remedies may be selected with boldness and confidence. I distinctly remember the case of a boy of twenty-two months, who had a very severe attack of wide-spreading, gastro-intestinal catarrh. Recovery did not take place in the usual time, and after a while the usual symptoms of enterohelcosis, ulceration of the follicular patches, showed themselves. The secretion and peristaltic motion of the intestines were such, that between twenty and thirty passages occurred day after day, week after week. In order to check the irritation, in fact, to paralyze as it were the muscular layer of the intestines, and to suppress the superabundant secretion, the use of opium, internally and in injections, was resorted to. Careful doses, a few drops of laudanum, daily, were commenced with. But this dose had no effect, and had to be increased daily; so much so, that the patient took nearly three grains of opium internally, and six grains in injections, which he almost always kept every day. These immense doses had to be continued three weeks, until decidedly favorable symptoms showed themselves, and then had to be diminished gradually. The same experience I have gained in a case of intestinal ulceration, resulting from typhoid fever in a girl of three years; she took as much as a daily dose of two grains of opium, for a week.

The question, why it is that such immense doses of opium are tolerated, is still an open one; for we cannot say that the fact based on experience, that when indicated large doses of medicines are tolerated, amounts to anything like an explanation. It is a statement which we

ought to be aware of from a merely practical point of view, but nothing else. If it is true that a bad article only is tolerated in large doses in inflammatory diseases of the abdominal organs, why is it that we never hear of so large doses required or taken by a person suffering from sleeplessness alone? Objects of experience, there are enough in the practice of every physician, and nevertheless, no large doses are ever given for the purpose of forcing sleep. Or is the cause of the large doses of opium being tolerated this, that it passes the intestinal canal without being absorbed? But is the stomach, in cases of intestinal ulceration of the kind mentioned above, any the less capable of absorption? Are not its digestive powers in this very disease immensely increased? And is it not a fact which every one is aware of, that the immense loss of secretion from the intestinal mucous membrane is barely made up by the introduction of immense quantities of nutritious food?

After these remarks, I proceed to lay before my readers a short synopsis of the affections of infantile age in which I have administered opium, besides those alluded to above. I beg permission to state, that I have not at all pretended, nor desired, to write an elaborate article on the subject, but to enumerate a number of diseases and symptoms in which I have found the use of opium not only pardonable, but useful and necessary.

1. *Cerebral Irritation.*—In spite of what I have said myself on the frequency of primary or secondary hyperæmia of the brain and its membranes, and although the effect of opiates is apt to show itself first in cerebral congestion, I have given small doses of opium in a number of cerebral symptoms. Genuine diseases of the brain are not so very frequent, as could be supposed from the indisputable predisposition; nor are all the cerebral affections occurring in the course of the other diseases of other organs depending on considerable anatomical alterations. A number of these are really nothing but the results of cerebral irritation; which does not require, and in many instances even counter-indicates, the use of antiphlogistics. This is so well known, that I feel satisfied with alluding to it. Without a correct diagnosis of the condition of the brain, opiates are not advisable; but I desire this principle not to be forgotten, that without a correct diagnosis, no powerful remedy ought to be administered; and less than any others, antiphlogistics and antiplastics, so readily resorted to in every and any cerebral complaint. The general impressibility of the nervous system in infantile age, both central and peripheric, is an undoubted fact; we observe a number of nervous symptoms in

which we are unable as yet to discover any anatomical lesion, either their central or peripheric; we know even, that the majority of attacks of convulsions in infantile age are reflected, and we are therefore justified in assuming that a central organ receiving such impressions and irradiating them again to its periphery, must occasionally be in a thorough state of irritation, without intense anatomical alteration. In such cases, the diagnostical differences of which are stated by the books, I mostly rely on the use of small doses of sulphate or acetate of morphia, or codeinum.

℞.—Solut. morph., Magendie, . . gtt. v.
Aq., ... ℥j.

M. D. S.: Three or four times a day, half a tea-spoonful, to a child of half a year, or a year of age; or,

℞.—Codeine, ... gr. j.
Aq., ... ℥jβ.

M. D. S.: Half a tea-spoonful three or four times, or more.

2. *Catarrh of the Stomach and Intestines.*—There is, in the catarrhal affections of the mucous membranes generally, and especially in those of the alimentary canal, an element of much trouble and perplexity to the practitioner. I mean the intense irritation existing from the very beginning of the affection. While the majority of such cases are simple catarrh, they cannot run their course without influencing the trophic and sensory nerves, and being influenced by them. Reflected action will spring up in the muscular layers, and increased peristaltic motion is the next result. In all such cases opiates are decidedly indicated. I scarcely ever treat either an acute or chronic catarrh of the intestinal canal without opium, as the occurrence of the affection, without greatly increased motion, is not possible. At the same time, the remedy has a decided influence on the secretion of the follicles of the mucous membranes and glands generally: not directly, it is true, but by means of the brain and its peripheric nerves. I add it, usually in the form of Dover's powder, to calomel, (which I use but exceedingly seldom, I may say scarcely ever,) subnitrate of bismuth, tannic acid, and subacetate of lead. I prefer Dover's powder, because the doses of opium must necessarily be small, and the division of the powder of opium would be rather difficult, or sometimes uncertain, and because of the, at times, desirable addition of ipecac.

℞.—Submuriat. Hydrargyr., . . gr. iv.–vj.
Pulv. Doveri, ... gr. iij.
Cret. præparat., . . . ʒss.

M. f. pulv., div. in p. æq., No. xii.

D. S.: A powder every two hours, for a child from six months to a year.

℞.—Subnitrat. bismuth., . . . gr. viij.–xij.
Pulv. Doveri, . . . gr. iij.
Cret. præparat., . . . ℥ss.
M. f. pulv., div. in p. æq., No. xii.

D. S.: As above.

As a general rule, I never use tannic acid and subacetate of lead in recent cases of catarrh of the alimentary canal, and have not been in the habit of ever using it in affections of the stomach, (except the latter, in cases of hæmatemesis.) The cases in which I resort to it are usually those of chronic catarrh of the intestine, (tannic acid principally in that of the intest. colon,) and mostly in children a little older; in such the dose of the opium has to be increased according to circumstances.

℞.—Acid. tannic, (Subacet. plumbi,) . gr. viij.
Opii, ... gr. j.
Cret. præparat., ... ℈ij.
M. f. pulv., div. in p. æq., No. xvi.

D. S.: A powder every three hours, to a child of 3 or 4 years.

In fresh cases of gastro-intestinal catarrh, which have got well after a simple treatment of the first-mentioned kind, I almost always follow it up with a simple opiate, in order to counteract the irritation, which by itself is able to again give rise to a copious secretion of the mucous membranes.

℞.—Laudan. liquid., Sydenham, . . gtt. x.
Mucil. g. arabic, ... ℥ijss.

M. D. S.: A tea-spoonful every 2–3 hours, to a child of eight months or a year.

Whenever there appears to be a necessity to apply opium to the intestinal canal locally, by means of injections, I should urge the utmost caution, and but small doses. Opium is, like quinia and some other substances, readily absorbed by the rectum, and ought not to be given in any larger daily dose than internally, provided that it is well injected and not soon ejected. DeWees may be practically right in the majority of actual cases, and taking into account the expulsive tendencies of the patient and carelessness of nurses, in recommending the triple or quadruple dose per rectum; and Beck: the double. But I again state, and lay stress on it as an indisputable experience, that opium will show its general symptoms by the same, and no larger dose, as in its internal administration; while, for instance, the subcu-

taneous administration of morphia, which, however, I have not resorted to in infantile practice, is more efficient and requires a smaller dose than any other mode of using it. As to opium injections, I prefer to repeat them frequently with small doses of laudanum, and to watch the effect, than to give large doses at once, which might prove dangerous or inconvenient; dangerous from its general effect, inconvenient and troublesome from the sudden suppression of local secretion.

In simple and complicated catarrh of the stomach, the administration of carbonates, or muriatic acid, or bismuth, will usually suffice. But in cases of incessant vomiting, which itself will increase the hyperæmia, and may even give rise to hæmorrhage, sedatives are necessary. Now, morphia, opium, and laudanum will sometimes produce vomiting. Extract of opium and tinct. opii camphor. are generally better tolerated, but the taste of the latter is peculiarly disagreeable to some children; besides, there are cases of irritability of the stomach in which absolutely nothing will be kept except the mildest and blandest remedy possible, besides ice. In such cases, codeinum or codeïa acts admirably in daily doses of from half a grain to a grain, according to age. I remember several cases in which nothing appeared to soothe the irritation of the muscular layer of the stomach but codeïa, and some in which I had to continue for some time to give a dose before each meal.

3. *Laryngeal Catarrh.*—In those cases of catarrhal affection of the larynx called pseudo-croup, or laryngitis spastica, I have always used opium in occasional doses with the best result, and recommended them accordingly, in a former lecture on the subject. Certainly I should not think of giving it during the attack of dyspnœa befalling children suddenly during night, and making the frightful *impression* of pseudo-membranous croup—the first and only thing to be thought of is an emetic, if anything—but the irritation and spasm attending this catarrh is best relieved by a dose of opium, given at bedtime. The spastic affection attending a simple laryngeal catarrh illustrates exceedingly well my remarks on the irritation of the mucous membrane of the intestines. The local affection of the mucous membrane of the larynx is of very little account, and would certainly not give rise to any serious symptoms, but for the narrowness of the organ and the implication of a large number of small muscles. But, as it is, a good dose of opium is required before the time the attacks will generally occur. Dover's powder, to gr. ij ss. in a single dose, given at bedtime to a child of three years of age, will generally succeed in procuring a relief

from the spastic attack, and a good night's rest, and will afford time for the effect of such other measures as are deemed proper.

From some remarks made above, the selection of the opiate most appropriate in an individual case will, perhaps, not be very difficult. I therefore abstain from making any addition. At all events, but the general rules can be laid down in expositions of so general a character. I desire, however, to add a very few words on the counter-indications to the use of opiates in infantile practice. It is certainly of at least the same importance to know what remedies to avoid, than which to employ, especially when we expect to do either the right thing, and that entirely, or nothing at all.

A principal counter indication, in my opinion, is an uncertain diagnosis. I should never propose the use of opium in a cerebral affection before I should be sure whether the case is one of simple irritation, or of congestive or inflammatory character. We must confess that many cases are not diagnosticable, with our knowledge hitherto acquired; but then we better not resort to powerful remedies, which may prove as dangerous as useful, if we do not know which. We can afford, and must be permitted to be ignorant, but we can neither afford nor be permitted to do harm. Nature will have less trouble in overcoming a disease without our support, than she can come off victorious from a fight against the disease and doctor at the same time. And there is no vigorous constitution nor a blooming life that a doctor cannot ruin and destroy, by not indicated, or contra-indicated remedies.

Hyperæmia of the brain and meninges, both active and passive, are strong contra-indications. Enough has been said of them.

Exhaustion and collapse are generally positive contra-indications to the administration of opiates. They are sedatives, and very powerful as such. Collapse and exhaustion naturally require stimulants and restoratives. In such cases, the prevailing local disease is generally of less importance in pointing out the treatment than the general condition of the patient, and such are eminently the cases which prove that the individual patient, and not an ontological disease, are the subject of treatment. If we cannot avoid the use of opiates in such cases, the greatest caution ought to be preserved; and they ought never to be resorted to without at the same time taking measures of rallying the patient. Such cases will occur in gastro-intestinal catarrh with rapid collapse, as often seen during the warm season.

The complication of severe intestinal catarrh with a pulmonary affection, particularly broncho-pneumonia, is a very serious, and sometimes fatal one. While the intestinal catarrh would probably require

the use of opium, it will hardly be possible to give regular doses of this drug in this complication. I have gained the impression from what I have observed, that the oppression and dyspnœa will be aggravated by regular doses of opium in the first stage of pneumonia, and the only purpose for, and mode in, which I now give opium in cases of the above description, is an occasional dose to procure rest.

II. *Belladonna.*

The root and alcoholic extract of this powerful narcotic have been administered by me in many hundreds of cases of infantile diseases. Those in which they have proved eminently successful are whooping-cough, and incontinence of both urine and fæces. A few remarks will suffice to lay my experience before the profession.

The most urgent objections that have been made to the use of belladonna in the diseases of early age were illustrations of its powerful effect. Therefore, also, the administration of the herb was frequently recommended in preference to both the root and the alcoholic extract. Such a recommendation, however, always originated in the so-called expectant method, in the principle of meddling as little as possible with the either wholesome or destructive proceedings of nature, in the uncertainty of doing good, and the fear of doing harm. But in regard to such diseases as really and positively require the intervention of art, I know of no principle that proves more injurious than this; and, instead of preferring the herb for its milder, and also more uncertain effect, I have discarded it altogether in my practice. The therapeutical effect of the root and extract I have found to be the same; the remarks I have to make are therefore applicable to either of them.

Belladonna is the most powerful remedy in whooping-cough. I scarcely remember a single case in which its administration, for years past, proved unsuccessful in shortening the duration of the process. The result obtained by me has generally been this: that a well-developed case of whooping-cough, after the diagnosis was made certain beyond a doubt, would last for only three or five weeks longer, instead of running through its full course of months and quarters of a year. The effect is generally not a sudden one. Many cases in which belladonna is given from the first commencement will become worse for a short while, then remain at their height for some days or a week, and gradually improve in both the character and frequency of the attacks. In others the effect is perceptible from the first days after their first ad-

ministration; the cases soon assuming a more favorable aspect. Such has been my uniform experience during the last five years, in each of which the children of this city have been suffering from a more or less severe epidemic.

My readers, many of whom doubtless have been in the habit of prescribing belladonna in whooping-cough with more or less marked success, need hardly be assured that I claim no priority. Belladonna has been recommended in this disease for many decennia, and has just as long been objected to, as either useless or dangerous. I have touched the subject because of my conviction that both the former objection and the latter fear are groundless.

Belladonna is well known readily to produce symptoms of poisoning. An amount of two and a half or three grains taken by an adult in the course of a day, of either root or extract, has the effect of dilating the pupils, causing a feeling of dryness in the throat, scintillation and giddiness, and even erythema of the skin. This latter effect is, however, not frequently seen in adults, while the effects on the pupil and brain are very common. It was therefore believed that, as nervous disorders are as common as they are dangerous in infantile age, these effects ought to counter-indicate its use; it was stated that it would cause congestion, sopor, acute hydrocephalus, and idiocy; and the practical consequence simply was, that the dose of the remedy, when given at all in a case where it appeared to be indicated, was entirely too small. Thus, doses of a sixtieth, a forty-eighth, a thirtieth of a grain of extract of belladonna, repeated three or four times a day, were deemed sufficient and proper. These doses could not but prove unsatisfactory, and thus it happened that the remedy was misappreciated and given up. The doses, however, administered by me proved successful, because they were really sufficient.

Infants of six or eight months of age affected with whooping-cough require a sixth of a grain of either the root or the alcoholic extract three times a day; children of three or four years tolerate three doses, each of half a grain. These doses appear to be very large in proportion to those tolerated by adults, but it is a fact which can easily be verified, that the effect of belladonna on the pupil and brain will hardly ever be perceptible in children from these or smaller doses. The sequence of belladonna symptoms in children differs, moreover, altogether from that in adults; the erythematous and flushed appearance of the face and neck, sometimes even of the whole surface, is the first symptom in infantile age; whereas it is seldom observed in adults, or in cases of thorough poisoning only. Some of the old authors have

advised the administration of belladonna to such an extent as to produce the first symptoms of poisoning; others, however, have insisted on this practice being dangerous and wholly objectionable. I, for my part, soon found that those children suffering from whooping-cough who exhibited general erythema from an apparent overdose recovered soon, while others, in whom no such symptom was observed, remained sick for a long time; and continued experience has proved that the occurrence of this symptom is absolutely necessary for the full remedial effect. To obtain a cure in whooping-cough, the remedy must be given in a dose sufficient to produce erythema, or at least a flushed condition of the face, and, as it were, feverish appearance after every dose of belladonna. Thus the dose is to be gradually increased until this result is obtained. It is a remarkable fact, that very young infants may take unproportionately large doses; at all events, I do not remember a single case in which less than half a grain was taken in the course of a day. The prescriptions I have been in the habit of ordering are very simple ones. I either give the medicament as a powder, or have the extract dissolved in water and sweetened according to circumstances.

℞.—Rad. (or extr.) belladon., . . gr. ii.–vj.
Sacch. alb., (or s. lactis.,) . . ʒss.
M. f. pulv., div. in p. æq., No. xii.
D. S.: Three powders a day.

℞.—Extr. bellad., alcoh., ... gr. vj.
Aq., ... ℥ ss.
M. D. S.: Twenty drops three times a day, (for a child of three years.)

The administration of belladonna alone is indicated in such cases of whooping-cough as are not complicated with catarrhal or inflammatory affections of the respiratory organs. The latter take the lead in complicated cases as well in treatment as in the nature and gravity of the symptoms. This is so certain, that whenever a pneumonia coincides with or follows whooping-cough, the peculiar sound of the cough of the latter will disappear, nor return before the inflammatory affection is removed. As this is moreover the most dangerous of the two, it requires attention before the other. As to bronchial and laryngeal catarrh, the former especially is a very common symptom in whooping-cough. Where it is but slight it may be considered as unimportant; where, however, it gives rise to fever or dyspnœa, it constitutes a fur-

ther indication to interfere. A dose of rad. ipecacuanh., or of oxysulph. antim., may then be given combined with the belladonna.

℞.—Rad. (or extr.) belladon., . . . gr. vj.
Oxysulphur. antimon., ... gr. xij.
Sacch. alb., ... ℈j.
M. f. pulv., div. in p. æq., No. xii.

D. S.: Three powders daily.

There are some old formulæ combining belladonna and opium. As we know at the present day, however, that in many regards belladonna and opium counteract each other, especially in their bearing on the action of the circulatory system, so that the two have been considered for some time past as direct antidotes of each other, the idea of combining these two narcotics must be given up as irrational.

Incontinence of urine is another of the troublesome affections which are in almost all cases easily removed by the administration of belladonna. From the almost regular effect it has, we must conclude that the majority of cases depend on increased irritability of the bladder, which is relieved by the administration of the narcotic. The affection is as frequent as it is troublesome. Dr. Addinell Hewson reports in the *American Journal of Medical Sciences*, October, 1858, "some facts in relation to the nocturnal incontinence of urine in children." He observed seventy-eight cases among the two hundred and ninety-two boys in the House of Refuge, in Philadelphia; the average ratio of the diseased being 1 : 3 75. The ratio was in the white boys, 1:7; in the black, 1:2.7. The average age was 12½ years; the youngest affected with the disease was 7; the oldest, 18 years old; the greatest number affected at any one age was 9; this was at the age of 14 years. Of 63 cases, there was uric acid deposited in 31 specimens, urate of ammonia in 8, urate of soda in 1, ammon. magnes. phosph. in 1, no deposit in 22. The prepuce and penis were discolored, and the former much elongated, as either from frequent pulling to relieve the itching of cystic irritation, or from masturbation; in 33 there was every reason to suspect this; in 12 there was no suspicion. Amount of drinking and diet had a great influence; a sudden fall of the thermometer or barometer always increased the number of patients. Bromide of potassium in two and a half and three grain doses, three times daily, cured 9 after a week's administration, and benefited 4 after another week. The remaining 50 were not benefited at all. To the 54 chloride of iron was given for six weeks without any effect. Tincture of cantharides was then given for two weeks, brought on dysuria in the majority of the patients, but cured none. Then, at

last, belladonna was resorted to. During two nights, at the end of the first week, there was not a single case.

I have given a pretty full account of this report, because of its accuracy, and not because of its being the only one. More than twenty years ago, belladonna, and other narcotics also, have been recommended for the same purpose, and the medical journals of the last few years contain a large number of cases of incontinence of urine, cured in the same manner. For four years past, during which time I have given belladonna in every instance, I have not seen a single case in which the medicament proved unsuccessful. A complete cure was generally obtained in half a week or a week, by doses of the same strength, or a little less than those given in whooping-cough. Perhaps, however, the administration can be greatly simplified. One of the former students of the New York Medical College, Dr. Guild, of Rupert, Vermont, cured a girl of seventeen years, who wetted her bed every night, and had been attended for her disease since her early years, in a few days, by a single daily dose of belladonna, administered at bedtime.

The admirable effect belladonna has in incontinence of urine induced me to give it in cases of incontinence of fæces, an affection not so frequent as the former, but certainly even more troublesome. The first case was that of a boy of three years, who, although accustomed to cleanliness and self-control, could not be induced to keep his fæces. Three daily doses of half a grain of rad. belladon. removed the affection in from five to six days. Several other cases were relieved in the same manner, and the experience of other writers shows the same results. Dr. Richard administered belladonna for the same purpose, and moreover, introduced into the rectum a suppository coated with extract of belladonna. In one case, a satisfactory result was obtained in two days. And Dr. Bercioux, after having tried, and generally in vain, tonics, iron, cold, cantharides, and secale cornutum, had complete success with extr. bellad., gr. $\frac{1}{7}$ (one-seventh) two, three, or four times a day, even in inveterate cases.

On the indications for the use of belladonna in other affections I have but little to say. As others, I have frequently used belladonna in photophobia attending the conjunctivitis of scrofulous children, and its alkaloid in more or less severe cases of keratitis. My general practice has been, in the former, to rub into the eyebrows, forehead and temples, many times a day, part of the following salve:

℞.—Ungt. hydrarg. ciner., . . . ʒij–iij.
Ext. belladon., ... ʒj. M. ft. ungt.

In cases of exudative keratitis, a solution of atropia in distilled water, applied to the eye by means of a soft brush, has proved exceedingly satisfactory:

℞.—Atropiæ, ... gr. j.
Solve in aq. destillat., . . . ʒij–℥ss. M. D.

Finally, of the prophylactic effect of belladonna in scarlatina, on which so much has been written and said, I have but little personal experience. This little, and a careful study of the results and experience of others, induces me to give it no further trial.

III. *Hyoscyamus.*—After the expositions given on narcotics in general, and on opium and belladonna in particular, a few words will suffice to characterize the value of hyoscyamus in the diseases of children. It has the general effect of narcotics, with less influence on the cerebral functions than any of the above. While it undoubtedly acts on the nervous system, its centres appear less affected by it than its peripheric ramifications. From this fact, it would result that larger doses are not only tolerated, but required.

In regard to its action on the nerves, we find that it influences more the sensory nerves than the trophic ones. It does not suppress secretion like opium, nor has it so much of the contracting power over the lumen of the blood-vessels as belladonna. While it is easily tolerated by the stomach and intestines, it little interferes, if at all, with their functions. Thus, it may be given in severe colic pains, added to such remedies as are administered for causal indications. It acts well, further, when added to medicines intended to relieve catarrhal affections of the respiratory organs. It relieves pain without producing sopor, and irritation of the mucous membrane without interfering with its secretion. It is, therefore, a valuable additional remedy in laryngeal and bronchial catarrh, and intestinal catarrh with great uneasiness or pain; in catarrh of the bladder, with much straining and pressing. It is, therefore, given merely for its symptomatical action; but we are frequently under the necessity of attending to the symptoms of an affection for their own sake, as well as we try to remove the cause of the disease. Finally, hyoscyamus acts well by counteracting the irritating effect of other remedies, which may be found indispensable, but the irritating effect of which is nevertheless much feared. Thus, I have, since I did not deem it proper to add enough opium, especially in very young children, to counteract the local irritation of veratria, always added, in infantile practice, extract of hyoscyamus to the tincture of veratrum.

℞.—Tinct. verat. virid., ... gtt. xx.
Extr. hyosc., ... gr. vj.
Aq., ... ʒiij.

M. D. S.: Ten drops every two (or three) hours, to children of a year, according to the indications of the tinct. veratri.

I add extract of hyoscyamus very frequently to expectorants, the action of which is not interfered with, while the cough of bronchial affections is greatly relieved; therefore, I often combine it with powders, or mixtures containing ipecac., oxysulphur. antimon., squill., liq. ammon. succin., or muriat. ammon.

℞.—Oxysulphur antimon., . . . gr. xij.
Extr. hyoscyam., ... gr. vj.
Sacch. lact., ... ʒss.

M. ft. pulv. Div. in p. æq., No. xvj.

D. S.: A powder every two (or three) hours, in bronchial catarrh, to children of one or two years.

℞.—Muriat. ammon. pur.,
Ext. glycyrrh. pur., āā., . . . ʒij.
Ext. hyoscyam., ... gr. xij.
Aq., ... ℥iij.

M. D. S.: A tea-spoonful every two hours, in bronchial catarrh, to children of two or three years.

℞.—Bicarbon. sodæ, ... ʒij.
Extr. hyoscyam., ... gr. viij.
Aq., ... ℥ij.
Syr. gummos., ... ℥j.

M. D. S.: A tea-spoonful every two hours, in catarrh of the bladder, to children of one or two years.

It is not necessary, however, to multiply prescriptions, when the indications for both its independent and additional administration are clearly given. Independent of any addition, I have often ordered it in the irritation and colic following gastro-intestinal catarrh, (in similar cases, therefore, as those requiring the use of codeïa,) and in laryngeal catarrh, in place of opium. While in the former a frequent and small dose will prove sufficient, it is better in the latter to give a larger dose, of a grain, or two or four grains, at once, in the evening.

The dose of extract of hyoscyamus, as is stated above, and as results also from the prescriptions given, is not so small as that of other narcotics. Newly-born infants have taken, with good effect, from a grain to a grain and a half a day, and children of two or four years tolerate well doses of from two and a half to four or five grains.

Makers
Syracuse, N. Y.
PAT. JAN. 21, 1908

LANE MEDICAL LIBRARY

To avoid fine, this book should be returned on or before the date last stamped below.

P47 Jacobi, A.
J16 Report on the clinic fo
1861 diseases of children.

NAME	DATE DUE
	13994